THE AMERICAN RIFLEMAN

25 CENTS

Mr. Albin E. McNamara,
196-41- 45th Ave.,
Flushing, N. Y. L. 11/28/36

UNITED WE STAND

Peter Peepsight gives a lesson

HOWDY, OSCAR! WOULD YOU LIKE TO SEE ME DO SOME TARGET SHOOTING?
YESSIR!
NOW WE'LL GO BACK A COUPLE OF HUNDRED YARDS AND I'LL SHOW YOU HOW TO FILL A BULL'S-EYE
YESSIR!
NOTICE MY POSITION – THAT'S THE SECRET OF ACCURATE FIRING – ACCORDING TO A BOOK I READ. NOW I WANT YOU TO TRY THE OTHER TARGET
YESSIR!
THINK YOU ARE STEADY ENOUGH? LIKE ME TO BRACE YOUR LEG OR SOMETHING?
H-M-M-M. HE SURE LOOKS COMFORTABLE
NOW WE'LL SEE HOW WE DID. I BET YOU'LL BE SURPRISED WHEN YOU SEE MY TARGET
YESSIR!
WELL, YOU SEE, MR. PEEPSIGHT – I USE PETERS, SO I MANAGE TO DO VERY WELL
OF COURSE, MY COACHING HAD A LOT TO DO WITH YOUR SCORE. ON THE OTHER HAND, MAYBE I SHOULD TRY PETERS

▶ Rifle and pistol shooters know that Peters "Dewar Match" and "Police Match" ammunition shoots tight groups at any range. Built to high-accuracy specifications, it has "Rustless" priming to prevent barrel corrosion, and each cartridge is made under careful laboratory control from start to finish. It's famous for improving scores.

PETERS

DU PONT

PETERS CARTRIDGE DIVISION
Remington Arms Co., Inc., Bridgeport, Conn.

Rustless and Dewar Match are Reg. U. S. Pat. Off.
Police Match is a trade mark of Peters Cartridge Division

THE NEW NAVY "E"-with-star—awarded first to Bausch & Lomb—is official recognition of continued accomplishment in Production for Victory. It symbolizes a singleness of purpose that justifies any sacrifice you or we may be called upon to make.

YOUR Ray-Ban

SUN GLASSES MAY BE ON AN ARMY FLIER NOW....

Because they make eyes comfortable, vision sharp, Bausch & Lomb Ray-Ban Sun Glasses have won top preference among sportsmen, shooters, outdoor enthusiasts. But those are the same reasons why Army and Navy men need Ray-Bans too. B&L production of Ray-Bans, like binoculars and many special optical instruments, is today at an all-time high. But you may have to wait for yours until government requirements are filled.

★

American War Birds Have Keen Eyes

FOR America's fighting forces, strictest requirements are imposed on the men who fly the fighter planes. Stamina, keen perception and split-second timing depend on condition. In the most critical physical examinations, particular emphasis is given to perfection of vision.

Several years ago, at the request of U. S. Army officials, Bausch & Lomb developed a special anti-glare glass for use in bright over-cloud flying. This glass, known as Ray-Ban, has the remarkable property of filtering out excess glare-producing light, at the same time transmitting most of the light useful for seeing. Army, Navy and airline pilots—as well as target shooters and motorists—have welcomed the cool, comfortable, keen vision that Ray-Ban affords.

So, again, and in still another way, Bausch & Lomb gives aid to America's all-out for Victory. Its other contributions, more obvious, include gun-fire control equipment—range finders, binoculars, aerial height finders. Behind the scenes, but of no less importance, are the instruments of industrial research and production—metallographic equipment, spectrographs, toolmakers' microscopes, contour-measuring projectors. Bausch & Lomb eye-wear products—eye examination instruments, spectacle lenses and frames—keep a nation of workers at top visual efficiency.

BAUSCH & LOMB

OPTICAL COMPANY • ESTABLISHED 1853

AN AMERICAN SCIENTIFIC INSTITUTION PRODUCING OPTICAL GLASS AND INSTRUMENTS FOR MILITARY USE, EDUCATION, RESEARCH, INDUSTRY AND EYESIGHT CORRECTION

BOOKS AND MANUALS

•for the Rifleman in War

Practical Home Guard Organization (For Reserve Militia or "Minute Men")	$ .25
The A.B.C. of Practical Pistol Instruction (For Home Guards — Industrial Guards — Auxiliary Police)	.25
Practical Organization of Industrial Plant Protection	.25
A Rifleman Went to War—McBride	3.50
Automatic Arms—Johnson-Haven	5.00
Automatic Pistol Marksmanship—Reichenbach	1.50
Bombs & Bombing—Ley	1.25
Book of the Springfield—Crossman	4.00
Civil Air Defense—Prentiss	2.75
Civilian Defense of the U. S.—Dupuy-Carter	2.50
Essentials of Infantry Training	1.25
Guerrilla Warfare—Levy	.25
Map & Aerial Photo Reading	1.00
Military & Sporting Rifle Shooting—Crossman	4.50
New Infantry Drill Regulations	.50
New Soldiers Handbook	.50
Skilled Defense—Mitchell	4.00
Spectre of Sabotage—Matthews	3.00
State Defense Force Manual	1.00
Textbook of Firearms Investigation, Identification & Evidence—Hatcher	7.50
Textbook of Pistols & Revolvers—Hatcher	4.25
The Officers Guide	2.50
The Old Sergeants Conferences	1.00
What's That Plane?—Pitkin	.25

•for the Hunter

Wilderness Hunting & Wildcraft—Whelen	3.75
Military & Sporting Rifle Shooting—Crossman	4.50
Big Game Rifles and Cartridges—Keith	1.50
The Woodchuck Hunter—Estey	1.50
Telescopic Rifle Sights—Whelen	1.50
Modern Shotguns and Loads—Askins	4.00
The Hunting Rifle—Whelen	4.75
Big Game Hunting and Marksmanship—Lee	2.00

•for the Gun Collector

Encyclopedia of American Hand Arms—Chinn-Hardin	$8.00
English Pistols and Revolvers—George	4.00
U. S. Martial Pistols and Revolvers—Gluckman	4.50
Catalog of U. S. Martial Short Arms—Gluckman	1.95
Gun Collecting—Chapel	2.50
U. S. Military Small Arms, 1776-1940—Hicks	4.50

•for the Reloader

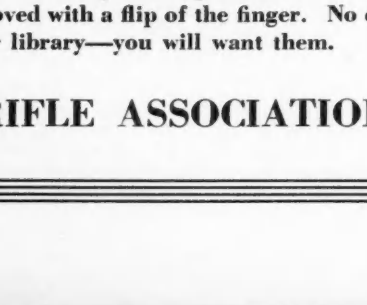
A.B.C. of Reloading	.25
Complete Guide to Handloading—Sharpe	7.50
Handloader's Manual—Naramore	3.50
Sixguns Cartridges and Loads—Keith	1.50

•for the Gunsmith

Remodeling Military Rifles	.25
Elementary Gunsmithing—Frazer	2.00
Firearms Blueing & Browning—Angier	2.50
Advanced Gunsmithing—Vickery	4.00

•for the Target Shooter

The A.B.C. of Pistol Shooting	.25
American Sighting Scopes	.25
From Tyro to Master	.25
Rifle Shooting Instruction	.25
Mastering the Pistol—Fisher	2.25
Mastering the Rifle—Fisher	2.50
.22 Caliber Rifle Shooting—Landis	3.75
Sixguns and Bullseyes—Reichenbach	1.50

Save Your  Rifleman

Now, more than ever, you should preserve your copies of the RIFLEMAN this easy way. This bronze embossed binder of heavy crush grain fabrikoid holds a *full year* and magazines can be inserted or removed with a flip of the finger. No cutting, punching or pasting. Add your magazines to your library—you will want them. (Postpaid $2.25.)

NATIONAL RIFLE ASSOCIATION SCOTT CIRCLE WASHINGTON, D. C.

COLT

SHOOTERS WIN EVERY INDIVIDUAL EVENT AT FLORIDA MATCHES . . . . .

AND COLT-SHOOTING KANSAS CITY POLICE TAKE FIVE FOUR-MAN TEAM EVENTS

A ONE MAN MONOPOLY

Harry Reeves, crackshot of the Detroit Police, staged another of his one-man exhibitions, winning 10 matches at Tampa and 14 more at Miami. His record at the former included both the .22 and .45 Mid-Winter Championships . . . and then at Miami, performed the impossible by making a clean sweep of all three championships: .22, Center Fire and .45. In the Miami International Open, his total was 60 points ahead of the nearest contender — an example of the red-hot pace he set with Colts.

SET NEW RECORD IN CIVILIAN DOUBLES

Colt shooters C. A. Brown and J. C. Hartness teamed together to up the Civilian Doubles figure to 579 for a new record in the .22 Two-Man Team Match over the National Match Course event at Tampa. Brown scored a 292, Hartness a 287. Jack Ackerman and Harry Reeves were second. Brown was High Civilian in Police, Military, Civilian Championship and runner-up in four other events at Tampa.

5 Wins for Kansas City

Setting a pace that couldn't be beaten, the Colt-shooting boys of the Kansas City Police Team captured three firsts at Tampa and two more at Miami. With 43 points to spare, they took the Firestone Trophy at Tampa . . . then, the City of Tampa Trophy and the Inter-State Inter-Service .45 event. At Miami, the Palmetto Trophy and the American Legion .45 match. *Left to right:* Byron Engle, Hugh Adamson, Sgt. D. E. Bates, Sgt. F. M. O'Connor.

1 **R. L. STANDAU**
Two well-fought wins to his credit at Tampa — the .22 Timed Fire and the 25 yard Slow Fire Any-Caliber in which he scored a 200 possible. Runner-up in the Police Individual and in 3 other matches.

2 **SERGEANT FRANCIS O'CONNOR**
A 198 in .45 Rapid Fire at Tampa allowed Colt-shooter O'Connor to return to Kansas City with a new National Record under his belt. He also won the Bausch & Lomb Trophy and placed second in 7 other events. At Miami he won both N.R.A. Short Course Matches (.22 and Center Fire) and was second in seven others.

3 **DR. F. F. SOWERS**
His 184 made first place in .22 Slow Fire at Tampa.

4 **M. O. WILSON**
Had a first in each tournament — the .45 Slow Fire at Tampa and a neat 199 in Center Fire Timed Fire at Miami. Was runner-up in 3 other matches, too.

5 **R. G. STILES**
Came through for two wins at Miami — .22 Rapid Fire and .45 Rapid Fire scoring 195 and 194 respectively. His .45 score topped his own Civilian record by two points.

6 **JOSE B. MARTINEZ**
Took the Miami .45 Timed Fire.

7 **HELENE STILES**
Winner of the Miami International Women's Championship.

8 **ALICE JEFFERSON**
Winner of the All Around National Mid-Winter Women's Championship and the .22 Women's Championship — both shot at Tampa.

9 **JOSEPH NIKODEN**
Winner of the .45 Slow Fire at Miami.

10 **LT. PHILLIP ROETTINGER, U.S.M.C.**
This Marine did right well for himself at the Tampa shoot. Won the Center Fire Rapid Fire, Center Fire Timed Fire, and then the Center Fire National Mid-winter Championship. Was High Military in the Individual Championship. In second position in 2 other matches.

11 **RALPH KIRK**
Winner of the Center Fire National Match Course event at Tampa.

YOURS FOR THE ASKING!

The 1942 Edition of

PISTOL HIGHLIGHTS

The Who's Who of Pistol Shooting

Hot off the press, Colt brings you their 1942 edition of Pistol Highlights — 36 pages brim full of dope about who's who among the pistol shooters of each state according to N.R.A. rankings. Over 200 photographs — handsomely printed. Edition limited. If you haven't already received your copy, write for one today — Fill out coupon below and mail at once. Sent with the compliments of Colt's.

NAME .....

STREET & NO. .....

CITY ..... STATE .....

COLT'S PATENT FIRE ARMS MFG. CO. Hartford, Conn.

Where would the U.S.A. *be* if *he* had been forbidden to "*Bear Arms*"?

NOW . . . as in 1776 *it pays to* SHOOT STRAIGHT

Today as in 1776 America needs this great "Nation of Riflemen"—needs their courage, their confidence, their marksmanship training! So, on this Anniversary of our Nation's Independence, we pay tribute to the straight-shooting civilian riflemen of America. Now, as always, they exemplify the American tradition. May their numbers ever increase!

DOWN THROUGH THE YEARS . . .

YOUR ASSOCIATION HAS—

- Kept alive the Minute Man tradition.
- Fought every attempt to disarm honest, gun owning Americans.
- Encouraged an ever increasing number of citizens to learn the fundamentals of straight shooting.

Membership in this great Association is a vote of confidence in its practical, patriotic motives. Use the post card inserted in this issue to strengthen the organization that contributes so much to the security of our Nation.

NRA

"The RIGHT... TO KEEP AND BEAR ARMS SHALL *Not* BE INFRINGED"

JOIN THE N.R.A.

The AMERICAN RIFLEMAN

Official Journal of The National Rifle Association of America

THE COVER: "Old Glory" takes its rightful place on the July cover in keeping with the celebration of July Fourth—not just another celebration this year, however, but one which should mean more to Americans than any previous observance. With America once more fighting for the very principles which that July 4 of 1776 brought forth, we gladly follow the suggestion sponsored by the National Publishers Association—a flag display for every July magazine. Photo by Lambert, Philadelphia.

THIS MONTH

"RIFLEMEN WITH WINGS" is the substitute for the story promised, "It Might Happen Here"—because: Glider training is right now being publicized all over the country, to encourage a new type of warfare our leaders feel is tremendously important. To cooperate with this program, we rushed "Riflemen with Wings" into print so that our readers may appreciate new tactics involving our rifleman-soldier.

"GETTING THE RANGE" by Colonel Whelen is to be noted as the second part of some basic material started last month with "The How and Why of Hunting Sights." We have had so many requests for reprints of the first part to be used among Home Guard recruits and "Minute Men" organizations now employing the average hunter, that the Colonel's suggestions on estimating distance, we believe serve a similar usefulness; elementary though they may be to our older readers.

"BETTER START GETTING READY," the letter from an Army officer to his son, was prepared at our request by C. J. Derrick, author of last month's guest editorial. Practical suggestions to our 16-year-old Juniors in their preparation for eventual active service or Home Guard duties is the theme.

NEXT MONTH

N. H. ROBERTS returns to RIFLEMAN columns with another of his résumés for which he is so well qualified. This time he reviews the .22 high velocity cartridges in a historical sequence that reveals some most interesting facts.

WILLIAM MONYPENY NEWSOM, author of the book "White Tailed Deer" gives us a start on the hunting season, some things we can be thinking about during August after reading his article "Deer Hunting Begins at Home."

VOLUME 90 NUMBER 7

JULY, 1942

". . . course of human events" An Editorial	6
Riflemen with Wings By Lieutenant John Clarke	8
Nazi Training By Stuart Ludlum	12
Revamping the .45 Colt By Jesse Harpe	15
Amphibious Trucks & Turkeys By Ralph J. Totten	18
Getting the Range By Colonel Townsend Whelen	22
Better Start Getting Ready By C. J. Derrick	27
Mortars By J. B. Nealy	30
Powell 12-Gauge Tubes By F. C. Ness	33
The 98 Mauser Action By Frederick W. Beckert, Jr.	36
Any Alibis?	38
The Old Coach	39
Powder Smoke	42
Dope Bag	47

Officers and Staff of the Association: Judge Hilliard Comstock, *President;* Thurman Randle, *Vice-President;* Major-General Milton A. Reckord, *Executive Vice-President;* C. B. Lister, *Secretary-Treasurer and Managing Editor;* L. Q. Bradley, *Assistant Secretary and Membership-Circulation;* W. F. Shadel, *Editor and Public Relations;* F. C. Ness, *Associate Editor and Technical Division;* John Scofield, *Associate Editor and Historical Firearms;* F. A. Moulton, *Advertising Manager;* F. L. Wyman, *Competitions and Pistol Division;* J. R. Lent, *Senior Club Division;* C. R. Rogers, *Junior and Collegiate Division;* F. C. Daniel, *Office Manager;* R. J. Stan, *News Service*

Published monthly by The National Rifle Association of America, 1600 Rhode Island Avenue, Washington, D. C. Domestic rates, including all of North, South and Central America, $3.00 a year; $5.00 for two years; elsewhere, $3.60 a year; $6.50 for two years. Entered as second-class matter, April 1, 1908, at the Post Office at Washington, D. C., under Act of March 3, 1879. *Copyright, 1942, by The National Rifle Association of America.*

"When in the course . . .

THROUGH all recorded history the course of human events as they pertain to government have followed a seemingly inexorable cycle; first, government by *laws* adopted by a free voting citizenry; next, government by *regulations* issued by a bureaucracy granted its powers by a lazy electorate; then government by *edict* announced by a dictator permitted to assume his powers by a degenerate, quarreling, self-seeking bureaucracy; finally, a return to government by laws approved by a citizenry which has *regained* its sovereignty by sacrifice, suffering and blood.

The men who wrote The Declaration of Independence were serious scholars. It was no accident of rhetoric that they chose "When in the course of human events" as the opening phrase of a Declaration of Independence which started men all over the world on the course toward the overthrow of dictators and the return of sovereignty to the people.

Yes, they squabbled and quarreled at Philadelphia, that July of 1776. Why not! They were *free* men fighting for the right of free men to express their opinions. They were petty about some things like prerogatives and precedency. Why not? They were *human* or they would not have had such a broad, firm grasp of "the course of human events." But they were *brave* men, risking their lives and fortunes. They were *big* men, intellectually, big enough to brush aside the dry dust, the sticky cobwebs, the smothering slime that had accumulated over men's minds until "government *for* the people" was as far forgotten as "government *by* the people."

On this July 4, 1942, we Americans who have so complacently accepted our independence, are just now coming to realize a brutal fact. "The course of human events" has *almost* run another cycle! Great masses of humanity who, a short generation ago, were free men governing themselves through laws of their own making are now taking orders from dictators. Even in those nations where the democratic *form* of government survives, the democratic *processes* have been temporarily supplanted by varying degrees of bureaucracy. On every side men ask: "What situation will exist after the War? Will we ever again live under a truly democratic form of government?"

Americans, the answer lies in your hands! Terrible danger lies in your present questioning. *You* should not be *asking:* "What of the future?" You should, you can, *you must,* be *answering* that question for mankind!

Americans are dying today, as they died in 1865 and in 1776, that the "government of the people, by the people, for the people, shall not perish from

. . . of human events . . . "

the earth." But their deaths *can* be in vain! We *can* win this war in the name of democracy, yet *lose* democracy!

We will lose the right to govern ourselves if we are too lazy to govern ourselves. There must always be some form of government. If the people do not govern, the bureaucrats do, for a space, then a dictator does. *It is "the course of human events."* Do you have corrupt officials? *You* elected them or made possible their election by failing to exercise the rights which men have died to preserve for you! Do you have legislative representatives who are ignorant, spineless, self-seeking or arrogant? *You* elected them, perhaps you do not even know who they are or where they live! Do you curse at dictatorial bureaucrats, bemoan the unfairness of trials at which the accuser is also the judge, groan about high taxes caused by wasteful extravagances and inefficient public servants? *You* permitted your representatives in legislative halls to pass the laws which transferred the law making powers from the people to the government bureau; which gave the power of police and judge alike to the government board; which authorized patronage appointments without regard to efficiency in government!

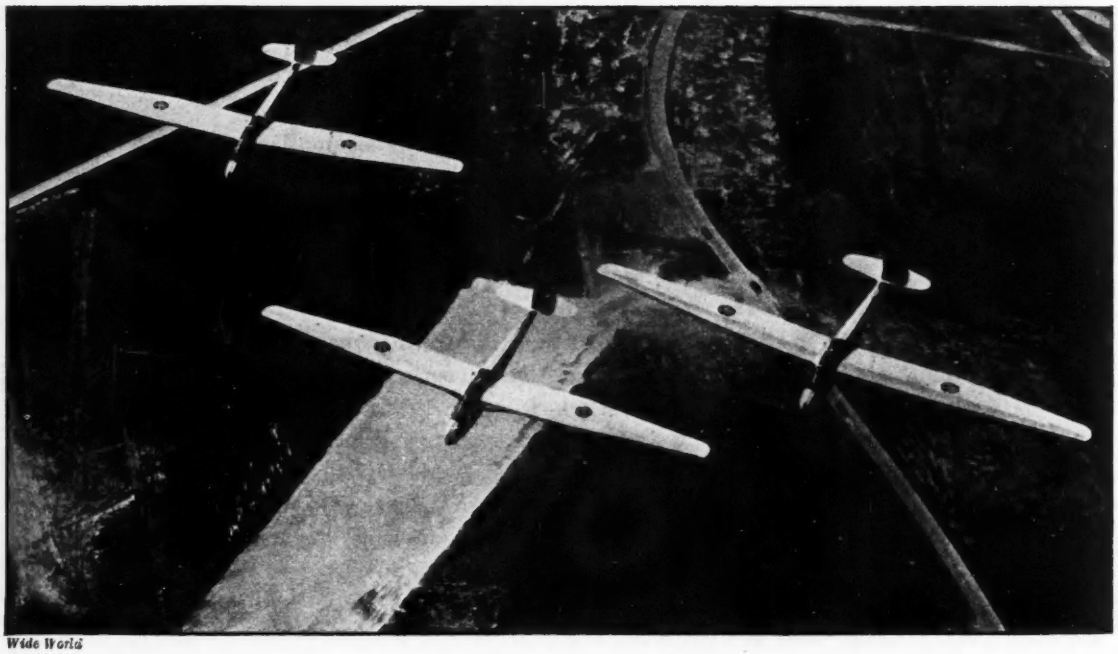
Perhaps *you* have said: "Get into politics? Not me, I haven't time!" Perhaps you have also said: "I want to get into the Service. I want to do something to help win this war." Does it make sense that we are ready and willing to give our time, our money, our lives to fight for the right to govern ourselves as free men—yet we are "too busy" to give a little time to maintaining with ballots what we have won and preserved with bullets?

On this July 4, 1942, when mankind everywhere looks toward America as it did on July 4, 1776, to see the torch of human liberties re-lighted, may we solemnly re-dedicate ourselves as individuals to that Declaration which said—*"We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed. * * * And for the support of this Declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our lives, our Fortunes, and our sacred Honor."*

Only when we demand of our political officers and government employees the same self-sacrificing devotion to the preservation of democracy that we expect, and get, from our military officers and enlisted men; only when *each* of us is willing to make whatever sacrifice is needed to serve America *politically*, as we are so willing to sacrifice to serve America militarily; only then will we be *assured* "that government of the people, by the people, for the people, shall not perish from the earth."—C. B. L.

RIFLEMEN *with* WINGS

By Lieutenant John Clarke



Wide World

The development of a parachute corps somewhat analogous to our present day Marine Corps, will give us, in the not-far-distant future, "Soldiers of the Air," for much of the same kind of strategic employments as those which would be assigned to today's "Soldiers of the Sea."

Even greater effectiveness is to be attained by the new force, so the predictions go, for the "Air Marines" will get there a lot quicker than their sea-borne cousins; and then, having arrived on the scene, the parachutists will be able to take up stronger tactical dispositions and conduct super-blitzkriegs, due to their capacity for starting operations from practically any point over which their transporting aircraft can fly.

Observers see the Army's present parachute organization as developing rapidly and surely into a separate branch of the service, and not merely as an ever-lengthening string of specialized infantry battalions, performing missions hardly at all different from those assigned to any similar rifle-unit save in the matter of the type of transportation used for moving into the combat zone.

True it is that parachutes have been made which will bring any except the very largest airplanes down to earth intact. Guns such as the 37-mm. anti-tank, and even larger ones, have been dropped successfully from planes time and again, and placed in action very quickly, using parachutes with canopies only a little bit larger than that of the parachute-rifleman's oversized trainer. Certainly it would be quite possible to produce parachutes in all the sizes needed to bring down an entire infantry division—personnel and complete equipment, including trucks. The percentage of damage by landing doubtless would be high during the experimental stages, and many technical hurdles would be encountered, such as the problem of getting the heaviest stuff into the air, and later detaching it from the plane. But in time they could be overcome.

There are established historical facts which seem to back up the prediction. Already Germany's current parachute division organization includes practically all the arms and equipment (except rolling stock) which is allotted to the foot or motor regiment, plus certain key items from the ordinary divisional arms. In the extent and versatility of its ordnance, it is practically a ground division. As to transportation, it has to balance the primary advantage of moving deluxe by air transport against the necessity for foot movement after it reaches the ground—barring of course the possibility of capturing an enemy motor park intact, or commandeering civilian vehicles.

Hence the arrival at such a prediction appears quite logical within itself. Parachute riflemen have been employed with signal success numerous times in Europe and Asia already, the advocates point out. Their assignments have been difficult and various, and most of the time they have accomplished missions which would have been virtually impossible for any other kind of present-day fighting unit. At first blush, then, it seems apparent that the future will bring greater and greater numbers of parachute-soldiers into the picture—not just riflemen, but artillerymen, supply units, even an armored force. Whole armies of them.

But this line of reasoning fails to take into proper consideration certain parallel developments in air-infantry technique, evidence of which we can glean from the present theaters of war.

First, it must be admitted that what is probably the greatest factor in favor of the parachutists—the element of surprise—has been minimized for the future because of the extensive use to which they have already been put. It has not gone so far that one can properly dismiss the prospects by a shrug and the observation that "parachutes have shot their bolt"; but neither can it be denied that virtually every strategic point in every zone of operations by now has taken such defensive measures as to threaten to hamper such attacks to the point of making them of doubtful remuneration.

Had Germany held back her *fallschirm-jaegers* until she was ready to assault England itself, history might be vastly different a generation from now. As it happened, however, Hitler more or less squandered one of the aces up his sleeve by using them in the conquest of several small countries, in which he stood an excellent chance of cheap success without uncorking anything other than the then-brand-new and eminently efficient methods he had already employed to crush Poland. His attacks on Norway and the Low Countries made the world parachute-conscious overnight, and England immediately provided for defensive measures against them which previously she either had considered unnecessary, or had not considered at all.

(True, Crete fell to parachutists months later, after the English garrison there had had ample warning and time to prepare for them; but in that instance the parachute threat became imminent only a few days before the attacks actually began; also, materiel was inadequate. And anyway—well, Crete is not England.)

Second, and far greater in importance is the development of a still more efficient means of troop transport which boasts practically every good point that the parachute possesses, and lacks some of its bad ones—the glider.

Right now, say reports leaking out of Germany, the aircraft plants of the Reich are embarking on the greatest glider-building program ever conceived. In some factories even the production of bodies for motored craft has been curtailed to make room for this all-out effort. If this be true, it is not likely that these gliders are intended for the recreational use of the Hitler Youth glider clubs.

Let's stack up the glider against the parachute, point for point, and see whether our reasoning dictates that we should consider this report to be propaganda—that is, intentionally spilled to mislead the Allies—or something which the Nazis would have preferred to keep under cover.

A parachute will put a rifleman on the ground at practically any point over which a plane can fly. A glider will do the same thing, with the additional advantage that it can be cut loose from the towing plane several miles from the objective. A transport carrying parachutists must fly directly over the prospective landing area, thus exposing itself longer to possible enemy fire and pursuit, or, at best, giving an unmistakable warning for miles around, both by the sound of the motor and by the billowing silk canopies popping out back of it against the sky. The glider comes in silently. It may even come in during darkness, which is most dangerous and impractical for parachutists who would suffer high injury ratios and then would still have to organize into teams after separate landings. The glider is vulnerable to attack by fighter planes, but then, so is a transport plane. Friendly air superiority in the vicinity is no less necessary for parachutes than for gliders.

A planeload of parachutists will, in spite of all known corrective measures, scatter itself over a good-sized piece of terrain when it jumps. Even though it may take a well-trained squad of 12 men only nine seconds to clear the door, a plane flying even as slow as 90 miles per hour

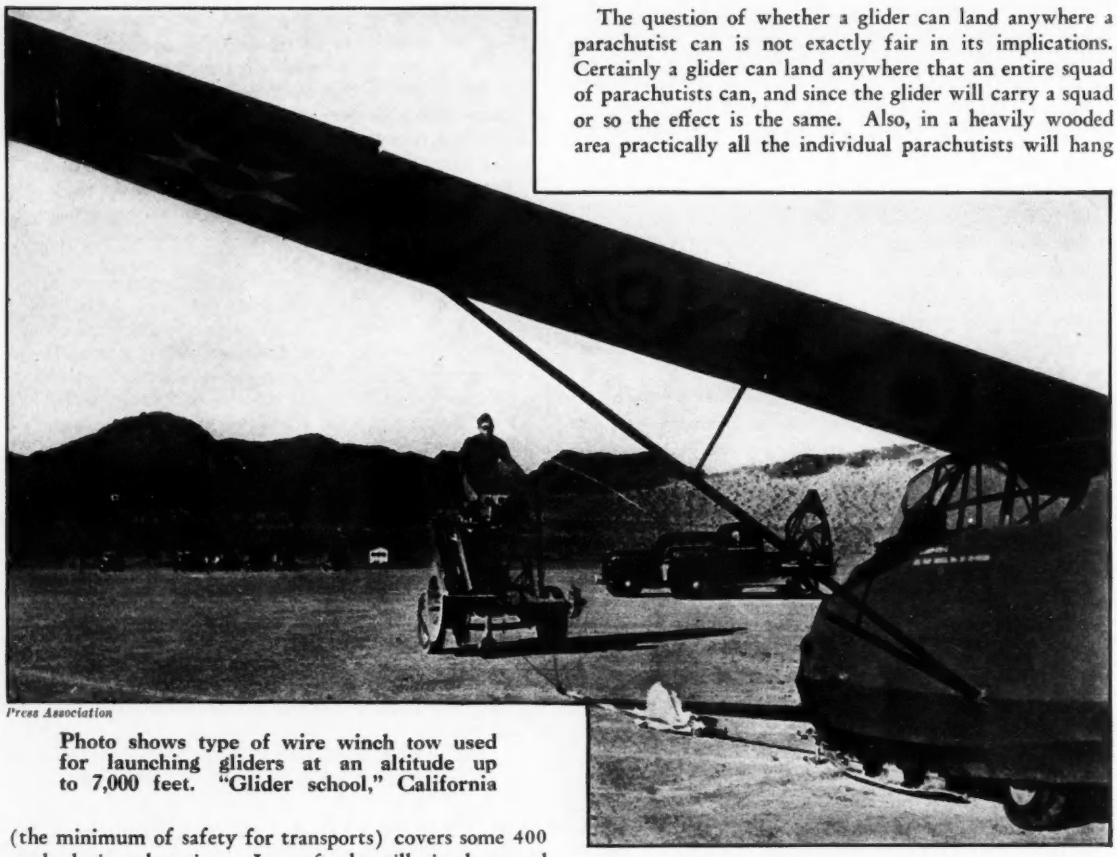
"ALMOST EVERY NIGHT the aerial freight trains of the German "Luftwaffe"—big transport planes, acting as locomotives, pulling from three to six gliders behind them—roar high over the Mediterranean from supply depots in Italy to the bases of General Rommel's army in North Africa. Tons of provisions and thousands of men have thus been ferried over the heads of the blockading British. The glider is writing a new and vitally important chapter of military science. Our own air corps is going in for gliders in a big way.

Besides its pilot, each German glider carries two tons of supplies and ammunition, or 15 fully equipped infantrymen. By towing six loaded gliders, the towplane does the useful work of seven transport planes, with great economy in fuel. The drag of the gliders cuts the towplane's speed to about 100 miles an hour, which makes it a lumbering prey for attack, but fast fighters convoy the trains through dangerous areas."

Condensed from *Air Facts* in *The Reader's Digest*

International

Gliders for training lined up outside hangars. In the background, planes used for towing in Marine training



Press Association

Photo shows type of wire winch tow used for launching gliders at an altitude up to 7,000 feet. "Glider school," California

(the minimum of safety for transports) covers some 400 yards during that time. In perfectly still air the squad might be able, by expert 'chute manipulation, to reduce the length of its pattern in the air by as much as 30 percent by the time it reaches the ground, but actually it has to plan for and expect an additional dispersion by wind currents which will extend the line by 20 percent or more, rather than reduce it. The width of the pattern on contact with the ground generally will be roughly half its length, so it is obvious that the problem of reorganization on the ground is almost invariably a difficult one. Where the terrain is wooded or rolling, a single squad may take hours to extricate itself from tree tangles, secure its equipment (possibly from the tops of trees), and assemble into an organized combat team. If in addition it is under fire, even sporadically, it will take a great deal longer. And if several other squads have jumped in the immediate vicinity, which is usually the case, there is likely to be further confusion over signals and the distribution of equipment. Some of the parachute regiments dropped on Crete required 12 hours and even longer to reorganize themselves into effective combat teams and proceed on their missions.

Contrast all this with the compact organization which disembarks from a glider landing. The riflemen carried by glider are all together when they reach the ground. Of course in a crash landing some of them may be injured, but the percentage will hardly be any higher than that of a mass parachute descent onto unfamiliar terrain and under the other disadvantages of actual combat. The glider-borne units also will have their complete equipment at hand so that they can fight back, if necessary, even from the inside of the glider.

The question of whether a glider can land anywhere a parachutist can is not exactly fair in its implications. Certainly a glider can land anywhere that an entire squad of parachutists can, and since the glider will carry a squad or so the effect is the same. Also, in a heavily wooded area practically all the individual parachutists will hang up in trees, widely separated and rather helpless. A glider tangled in a tree does not present near as much of an extrication problem to the individual passengers. Part of standard glider equipment is a supply of ropes for reaching the ground in such an event.

Perhaps it is not quite cricket to bring up the matter of comparative cost, for anything which increases the likelihood of success for a mission justifies any reasonable expenditure of man-hours and materials when a country is at war. But on this point too the glider seems to have the edge. It may be surprising to some to learn that a sturdy glider, capable of carrying a squad of 12 men and all their equipment, can be built for quite a bit less than the cost of providing a dozen service personnel 'chutes plus the three or four delivery parachutes necessary to bring down the heavy equipment of such a group.

One might think it well, for safety's sake, to provide emergency parachutes for all riflemen traveling in gliders, but space is precious in all air transport, and in the long run it probably would be a better investment for everyone concerned to forget about parachutes and use that space for additional fighting equipment. Actual flights in gliders are not necessary as part of preliminary training for non-piloting personnel before actual movement into combat, and even if a thoroughgoing commander insisted on training flights, the safety parachutes could be figured in for the space to be allotted later to the supplies of ammunition, rations and similar items not required for the training phases.

A glider must be regarded as expendable. If the landing is good, and if friendly ground forces move up quickly

to envelop the landing areas of the glider-borne units, it might be salvaged for further use, but that should not be counted on. Yet by the same token, parachutes probably cannot be used for more than one mission either—especially in these days, when anti-parachutist defense measures have forced jumpers to plan their descents far away from the objectives. The 'chutes cannot be toted for any great distance, especially along with the bulky load of fighting equipment, and they would seriously hamper tactical operations even if Supermen could be found to carry them. To maintain a maximum of secrecy, it usually will be necessary to bury them, or abandon them in heavy undergrowth.

Even if the questions of supply and expense weighted heavily in favor of the parachutes, it would still be tactically advisable to employ gliders for the sake of increased chances of accomplishing the mission with a minimum of casualties. The parachutist's period of greatest vulnerability—from the moment he jumps until he has reached the ground, secured his equipment, and joined his leaders for reorganization—is eliminated.

Another distinct advantage, in the matter of economy of force, is that virtually no specialized training is necessary to make glider troops out of ordinary riflemen. To make a parachutist, on the other hand, requires many weeks of expensive training, much equipment, and the attention of military personnel who could well be used elsewhere. Training for a glider squad would hardly need to extend further than showing the group how to load in the glider and how to unload quickly and smoothly in various situations. Two or three days should be ample for this; no actual flights should be necessary.

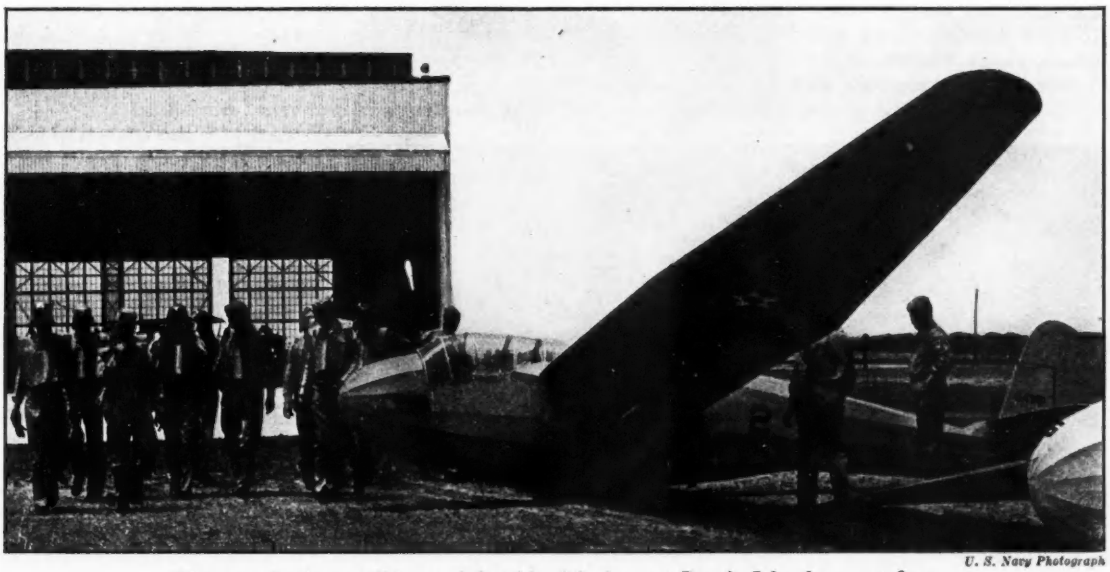
The question of providing planes for towing gliders certainly offers no more of a problem than does the supply of planes for carrying parachutists. Even greater efficiency and effectiveness may be attained by using bombers or pursuits for the towing, so that they could move on ahead after the gliders are cut loose to cover the landings, provide bombardment and strafing and receive signals from the ground. At any rate, since the planes would not have quite as far to carry their cargoes, there would be a slight increase in the range and the fuel-safety factor.

Several gliders can be successfully towed by one plane. The increase in fuel consumption is almost negligible; at worst it is nowhere near the amount that would be needed for shuttling the occupants of both gliders on separate trips. The towing plane may be used for other purposes than bombardment or strafing; it may carry parachutists with special missions connected with the glider-troops' operations, or it may be used for supplying additional special equipment to the troops by parachute, on signal from the ground following their landing.

The problem of supplying pilots for the gliders appears to be the one major drawback. But there should be plenty of good Americans capable of completing such training satisfactorily. Germany got hers from somewhere. At any rate, the need is no greater than that of pilots who might operate planes to transport a corresponding number of parachute troops.

Germany is the only country which has used gliders in combat enough to be fully qualified to endorse them. Her present unprecedented glider-building program is the best evidence we could receive that her past experience with them has proved their value to her satisfaction. And apparently she has decided to toss in gliders for blue chips.

There is no doubt that the American rifleman is destined to become a "Sky-rine", and this just as soon as he can be provided with the necessary transportation in the necessary quantities. In World War I he graduated from feet to wheels; now he is surely fated to graduate from wheels to wings. But only a few specialists, trained for sabotage, demolition, intelligence patrolling and similar missions will be primarily parachutists. For full-dress combat in large numbers, the glider simply has more on the ball than the parachute. Parachutists *can* do the big jobs if necessary, but glider troops can do it better and with fewer casualties. Why dig your holes with teaspoons when there are shovels handy?



U. S. Navy Photograph

New emphasis on glider training hits Marines at Parris Island among first

NAZI TRAINING

German "Leather Stocking Tales" give us a clue to the Nazi military science

By Stuart Ludlum

A GERMAN AUTHOR NAMED KARL MAY once wrote some books about the American Indians, books that have been the favorite reading of generations of growing German boys. When these boys report for their required military training, their German Army instructors remind them of the resourceful Winnetou, the great Indian hero of May's books, and urge them to be self-reliant . . . like Winnetou and Old Shatterhand, Winnetou's "white brother," whose powerful punch earned him his name.

Naturally, Winnetou and Old Shatterhand were riflemen of phenomenal ability. Their feats of marksmanship with the twenty-five shot "Henry-Stutzen" repeater (*Stutzen* meaning short) stimulate German recruits to become expert riflemen.

American marksmanship with our own Henry Rifle, the immediate ancestor of the Winchester . . . a hero with an American comic-strip nickname . . . and a resouceful American Indian chief are held up as ideals to the German boys who are being trained to fight Hitler's battles for him. Let's not underestimate these "robots" we'll have to kill before they kill us. Let's brush up on the "Leather Stocking Tales," for American Indian lore is now a part of German military science.

American Indians have taught the German infantryman to select oak leaves for camouflage when he is advancing through the scrub oak that is so prevalent in parts of Europe where leather is tanned with oak bark, and where the trees have been cut and the scrub oak allowed to grow. His instructing officers will try to confuse him by stopping near evergreens. But his American Indian training will tell him to select not the most concealing but the most prevalent natural camouflage.

Karl May also wrote a series of books about Arabia, "The Land of the Silver Lion." These exciting stories have educated many a German soldier in the ways of desert warfare. Reports from Libya tell us that the Nazis are using Indian and desert tactics effectively against the British. For example, the Nazis will make camp. The British scouts, in planes and on the sand, report the location of the camp. When night falls, the British attack, only to discover that under cover of darkness the Nazis have slipped away.

Library of Congress Collection

European

Indian tricks of camouflage and subterfuge were known to early Americans. Nazis have studied and applied

Another Indian trick they employ has been filmed hundreds of times with horses and covered wagons instead of armored cars and tanks. When nightfall catches a British motorized detachment or supply convoy too far from a fortified base, the British make a circle of their armored cars and tanks, noses out, just as the pioneers did with their covered wagons. Inside this circle, fires outline men and equipment for the Germans who, Indian fashion, approach at high speed, circle around the camp and blaze away at their silhouetted targets.

"In modern warfare, each of you must be his own general." Those are among the first words of instruction the civilian hears when he reports for his year's training with the German Army.

Each new recruit is issued a Mauser 7.9-mm. Model 1898 "Kar" (the Kar means short or "Karbine"). This rifle is issued to cavalry and infantry alike, for the cavalry is considered "riding infantry" and is used mostly for reconnaissance work. A bayonet, saber and score book are also issued with the rifle, all bearing the same serial number.

As soon as the arms are issued, the recruit is taught how to clean and care for them. The German Army is very strict about the care of weapons and metes out what is known as "penal punishment" for even minor infractions of the cleaning regulations. This "penal punishment" gives the propagandist a chance to point out the brutality of the Hun, for it really is brutal discipline. The offender, in full equipment, perhaps with his gas mask on, is chased for a half an hour or so around the parade ground. Down on his face . . . up again . . . on as fast as he can run . . . crawling and rolling through mud . . . down . . . up. Men in fine physical condition have been known to collapse.

Lib. of Congress Collection

European

Early American drawings depict ruthlessness of Indian warfare. Nazis seem to have copied in countries now occupied

Undoubtedly such treatment would not be tolerated in an American army. But cruel as it is, it does impress even the dullest German peasant with the rifle-cleaning religion that must be practiced.

An interesting side light on the psychology of the German "Arms Corporal," who teaches the recruits how to clean their weapons, is his attitude about the cleaning regulations. After explaining the regulations and demonstrating the cleaning gadgets, he will say that soldiers have been known to use an old toothbrush to keep sights free of dust—and have used split matches to keep small cracks free of grime. "But," he will add, "I don't want to *see* any of you men doing these things." He puts the emphasis on *see* and has—with that—made himself one of them. He makes it very clear that they will have to go against regulations to keep their rifles immaculate—yet if he should ever ask them how they cleaned their rifles, they should always answer "with the regulation cleaning outfit."

Frequently during the year's training, alarms are sounded in the middle of the night. Every soldier must appear for active duty in full equipment. In the cavalry, they will ride out perhaps for an hour or two and then stop for inspection. A check-up on cleaning equipment and razors is often made, for they are usually overlooked and regulations call for complete shaving accessories as well.

Before an overnight leave is granted the German soldier must turn in his weapons to the Armory Corporal, who inspects them carefully and, if they are perfect, gives him a receipt which he must turn in before he gets his leave.

The first rifle training comes on the parade ground. A rifle is fastened to a table. To the rifle is fastened a gadget with a mirror and a dial that reveals the pressure of the finger on the trigger, magnifying the pressure of the squeeze. The recruit sits at the table and aims the rifle while the instructor sits at his right, facing the dial and mirror. Through the mirror the instructor checks sight alignment. On the dial he sees how smoothly the recruit squeezes the trigger.

The first actual shooting is done in an open field with a .22 adapter in the Mauser. Head and shoulder silhouette targets are used, and the scores are not recorded in the score book. This practice gets the recruit accustomed to shooting at various ranges.

In slow-fire practice (*einzelfeuer*, single fire) three shots are fired in each position, standing, kneeling, sitting and prone. The target has a 30-centimeter black (about 12 inches in diameter) which contains the 10, 11 and 12 rings. The 12-ring is ten centimeters, or a little under four inches, and the ranges are 100, 200 and 300 meters.

Each man shoots only one position at a time, waiting while the other forty-seven shoot before he tries the next position, usually getting only 12 shots in each practice session, which may be held once every couple of weeks . . . or several days running. There's no telling which. In rapid fire (*schnellfeur*, rapid fire) shots are fired in approximately fifty seconds . . . prone position only.

When the soldier goes up to shoot, he snaps to attention, salutes the scorer, hands him his score book and takes his position on the firing line. He does not make use of the sling in any position. The value of each shot is recorded in his book by the scorer. After his three shots, he snaps to attention again, clicks his heels, reports the value of each shot and retires to wait his turn for the next position. When the session is over his book is returned to him along with any "centers" he may have hit. Clean misses of the target are called "railroad tickets."

The Germans add an incentive for proficiency in this way: On the back of every bullseye the "target detail" pastes a circular picture in full color the size of a beer coaster, about three and one-half inches in diameter. Each "center" that's hit is given to the soldier who hits it. The soldiers paste them up in their barracks over their beds. The pictures, which are usually hunting scenes, make colorful decorations for the drab barracks and the German soldiers take pride in them and in their ability to win them. Psychologically they are to recruits in training what decorations and medals are to soldiers in battle.

In addition to target practice on the single target range, the German recruits train for attack, a very practical training that includes target recognition (*zielansprache*) and distance estimating.

Sixteen men attack in a unit. Four make up a machine gun crew while the others use rifles. There is no individual scoring. The group is rated either by the number of shots fired compared with the number of hits made on the targets or the number of hits within a limited time.

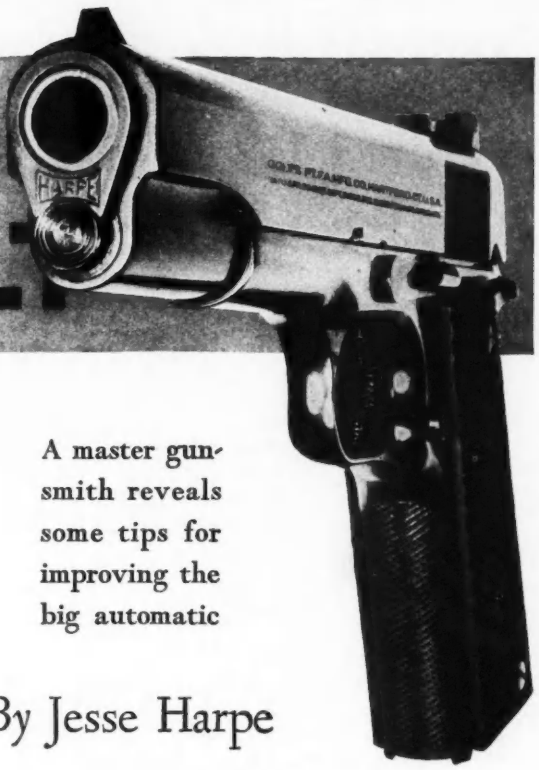
The sixteen men advance over rough terrain to an imaginary line between a tree and a rock or other natural landmarks. When they arrive at the indicated line they stop. They are now spread out. The first man who recognizes one of the targets calls, "In front of us, a group of birch trees." One by one each man will answer, "A group of birch trees," indicating that he has heard the order and that he has spotted the landmark. The man who has spotted the target will then call, "One thumb jump to the right (*daumensprung-rechts . . . links*, right or left) a green bush." The birch trees are sighted with one eye open and the other eye closed. When the closed eye is opened and the open eye closed, the thumb seems to jump. As each man measures off a "thumb *jump*" to the right he calls back, confirming his location of the spot indicated. The first man then calls, "One thumb *width* to the right" (*daumenbreite . . . rechts*). Once again each man calls back confirming the location of the spot. The first man then calls for estimates of the distance. Each man calls out, in meters, the distance at which he believes the target to be. The officer then takes an average of these estimates and orders all men to set their sights at the same range. Then—fire at will. . . .

Paul Thompson *Lib. of Congress Collection*

Let's not forget our forefathers found that one way to lick the Indians was to learn their methods, outsmart them, and then shoot straighter, quicker. Let's not tell the American boys who have been assigned the task of shooting that army into submission that they're going to fight an army of robots, unthinking machines. The German soldier has indicated his resourcefulness. His training has been thorough.

Without hating the Hun any less, let's try to understand him better—respect rather than underestimate his abilities—so that the A. E. F. of 1942 will fare better in Europe than the B. E. F. of 1940.

REVAMPING THE .45 COLT



A master gunsmith reveals some tips for improving the big automatic

By Jesse Harpe

THERE ISN'T MUCH ARGUMENT that the Colt .45 Automatic is one of the best handguns in the world. There are shooters who will cuss it and discuss it and cuss it again, but before a man can call himself a Master with the pistol he must learn to shoot the big Colt. Once having learned to shoot the big-bore, there is a fascination about it that seems to take some of the thrill away from the smaller caliber. When you outscore Harry or Joe with the .22 it is just one of those things, but when you trim him with your .45 you feel that you have really accomplished something worthwhile.

Look at the NRA Classification list for 1941 and compare the .45 records with those made with the .22's. You will be surprised at the small margin of difference. Such scores as these, made by the ranking pistol shots of the country, are not accidents but the result of hard practice with good guns—rebuilt or "tuned-up" guns. I do not believe there is a single .45 caliber record held by a gun which had not been worked over and improved for accuracy by one of our custom gunsmiths. This is no reflection on the factory. They are capable of, and can build guns equal to any. However, to build a gun as closely fitted as required for top-flight competition is not practical from their standpoint. It requires too much close-fitting handwork and would increase the cost of manufacture far beyond what they could sell it for to the average purchaser. Also, a gun which is closely fitted must be kept clean and free from rust and gummed oil if it is to function properly. A surprising number of .45 owners don't keep their guns this way, and the factory avoids a whole lot of criticism that would be levelled at the gun and not at lack of care.

Now to the problem at hand. The proper fitting of the .45 Auto does not depend upon any one thing but upon a combination of improvements and close-fitting of parts which will force the barrel into the same locking position after each shot is fired. An explanation of the proper fitting will be attempted in the following paragraphs.

The Author at work

The first step is to be sure that the barrel is worth an accuracy job. If not, use a new barrel. The barrel should measure .443 to .444 inside at the muzzle end. If larger than this save it for a spare and use a new barrel. If a new Colt barrel is used you won't have to worry about measurements. I have never seen one of their barrels that would not come within these limits. Put the barrel on arbors between centers on the lathe and grind the muzzle end perfectly round for about ⅜ inch. From there to rear of contact surface relieve it from .002 to .003-inch. This prevents "freezing." It also leaves the barrel larger on the muzzle end though if properly done, it is hard to detect without using the mike. While preferable, it is not absolutely necessary to have a tool post grinder for this purpose. Good results can be obtained with a 6-inch mill file and fine emery cloth—about 180-grain. Let the barrel spin in the lathe and reduce it about .001 or more with the file—keeping at least ⅜-inch away from the muzzle end—and finish with fine emery cloth. Polish until all file marks are removed and finally polish the muzzle end with emery cloth on a flat file. Save the worn emery for final polish. In using the file or emery cloth keep them moving from one end to the other of the surface being reduced or polished, or it will not be uniform over the full length.

Before making a new bushing be sure that the slide fits closely but without a trace of binding. If the slide is worn and shows looseness, remove the firing pin, rear sight and extractor. Place it on its side in a smooth-jawed vise, protecting it from marring with sheet brass or other soft metal. Before tightening the vise, "mike" the slide carefully to check the width, and record the measurement. Now carefully tighten the vise so as to squeeze against the grooves, forcing them to close slightly. Go slow—tighten just a little at a time—try for fit often. When the slide will just move in the receiver, but is a tight fit, stop. Mike the sides again and see if the slide has been widened by the squeezing. If so, place the slide

Fig. 1: These are the parts which receive special attention. For complete cross section see page 17, Sept., 1941, issue

in the vise right side up, between sheets of brass, and squeeze back to the measurements you have previously taken. Now lap the slide and receiver together by using a *little* of the finest emory flour and oil in the grooves. Don't use much emery or it will make the slide stick. Work slide back and forth until free, using plenty of oil. Carefully wash off all emery and oil. Slide should then work smoothly with no lost motion.

If you are going to fit a new front sight, do both fitting and polishing where it comes through the slide before making the bushing.

Make the new barrel bushing of some good grade of metal, preferably tool steel and it will outlast several barrels. Proper fitting of this new barrel bushing is of the utmost importance as it is the part that forms the front bearing or rest for the muzzle of the barrel. It would probably pay the amateur to order a semi-finished bushing and plug, which would require very little fitting, from one of the gunsmiths who manufacture them. However, if you are equipped to make your own, start with a piece of 1¼-inch round tool steel and machine to a size that will be a close fit into the slide. The front end of the bushing should be left thicker (see fig. 1).

After machining to fit the slide, drill a small hole as a starter and follow with a $\frac{9}{16}$-inch drill. This will be too small but can be finished with an inside boring tool or internal grinder. Before removing from the lathe, bore the relief in back of the bushing to about the center of the locking lug. Then use a cut-off tool to remove the bushing and face the end. If you do not have a milling machine or shaper, just grind off the surplus part of the lug and fit to the slide. Turn the old bushing upside down and scribe around it. Use a hacksaw to cut away surplus metal and finish with a file. Be careful in using the hacksaw that you don't cut off the lug. After all other fitting is finished put the new bushing in your lathe chuck and either grind or carefully bore for the barrel. Make a good fit at this point, but bear in mind that the barrel will expand from heat.

Now you can put the bushing in the slide with the barrel in place and see that the barrel unlocks and works freely in the slide and bushing. Then take the barrel and weld a small amount of metal on the end of the barrel extension and refit to slide so that there is no end-play. Polish the chamber very carefully.

Now we come to the link. This should also be of tool steel. Take a piece of flat steel and file or grind to a close fit between the barrel lugs. Then use a No. 23 wire-gauge drill for the link-pin hole. Place the pin in this hole and, using the old link for a jig, center-punch for the larger hole. Drill the large hole undersize to allow for hand fitting. Fit the slide stop to come firmly against the barrel lugs without binding (Fig. 1). The object is to have the slide-stop pin fit closely against the barrel lugs, forcing the barrel into the same position after each shot is fired.

You are now finished with the fitting of the barrel, barrel bushing, and link. If this has been properly done the gun will be extremely accurate. This is the most important part, though for a really top-notch target gun it is necessary to have a good trigger and action.

Strip the hammer, sear, trigger, etc., from the receiver.

The completed Harpe revamping job looks like this. Checkering is added for better holding

Examine the groove in which the trigger slides. You will find it larger toward the trigger guard. Take a narrow pillar file and smooth these grooves as well as you can, finishing with fine emery wrapped around the file. Then take the trigger and spread the sides where they contact the grooves so that a maximum of side play is taken out. Polish the sides of the trigger where contact is made. Then place the receiver in a vise, using a piece of lead or babbitt to keep from scarring the trigger guard. Squeeze the guard close to frame to take out vertical play of trigger (Fig 1). Before going any further be sure that the trigger is free, with no bind or drag, and with as much excessive motion removed as can be accomplished. Polish all contact points of sear spring, sear, hammer, pins, etc. Then assemble and try for pull.

Right here a word of caution. Before changing sear or hammer points examine rounded end of disconnector and milled slot in slide in which disconnector engages. Sometimes the milled place is rough and the disconnector slipping across it will feel like a "click" in the trigger pull. If this occurs, polish the end of disconnector and milled slot in slide. Then proceed with necessary trigger adjustment. The let-off principle of sear and hammer is similar to that discussed in a previous article, except that they are not visible and more care must be exercised to get good full contact surfaces on both sear and hammer notch. When desired pull is obtained—this should be four pounds plus—fit the grip safety. Before fitting safety, weld for trigger stop (Fig. 1). Fit this part so that it will just allow hammer to fall without excessive back slap. Another way to remove back slap is to block movement of trigger by using a stop against the magazine catch. An Allen set-screw through the trigger makes a good stop, but is visible from the front of the trigger and mars the beauty of the gun. The main thing though is to *remove the back slap.*

If care has been maintained in all of this fitting, you now have one of the best .45's it is possible to obtain. In figure 1, you will note a set of sights that will meet with all requirements anywhere. They are of the type used by most of the top shooters: $\frac{1}{10}$- or $\frac{1}{8}$-inch front sight with wide rear sight. I personally prefer the front and back strap checkered. The gun seems to hold better and does not shift in the hand.

All of these things are improvements and help to make good scores. It is my contention that a combination of all—together with good holding and squeezing—makes champions.

Legislative Improvement in New York

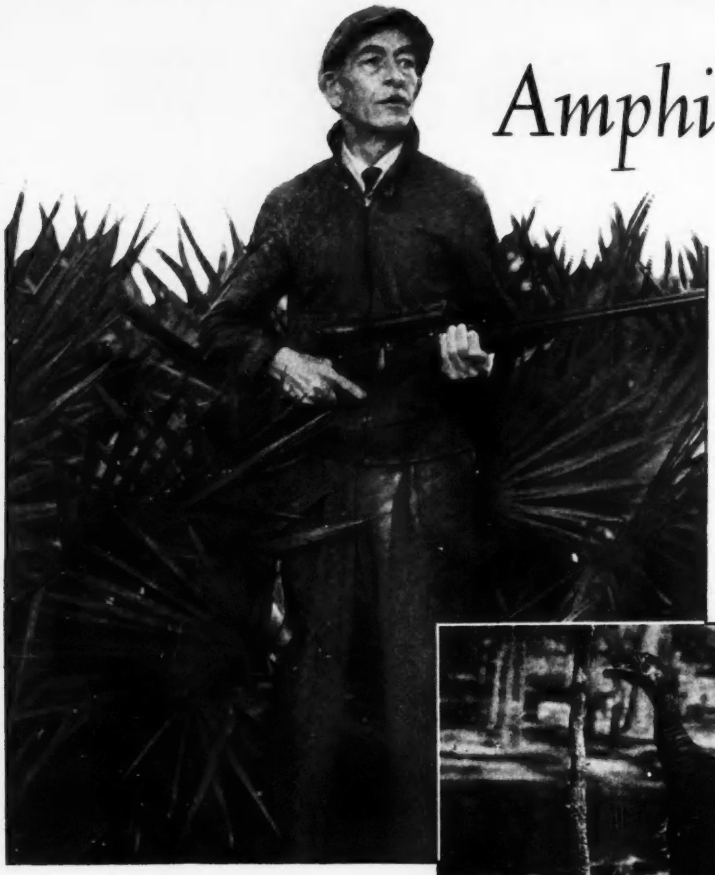
ONE PARTICULARLY OBNOXIOUS PROVISION of the generally obnoxious "Sullivan Law" provisions of the New York State Code has been the prohibition against the possession of a .22 caliber rifle by any youngster under the age of 16. Under this law it was impossible for a father to legally teach his son the proper use of a rifle until the boy had become 16 years of age.

The New York State Legislature has at last adopted and Governor Lehman has signed a Bill sensibly correcting this situation. The new Law went into effect on May 8, 1942, and amended Subdivision 3 of Section 1897 of the Penal Law in the following language:

> "Notwithstanding any inconsistent provision of this subdivision or any other provision of law, it shall be lawful for a person under sixteen years of age but not under twelve years of age who is a duly enrolled member of any club, team or society organized for educational purposes and maintaining as a part of its facilities or having written permission to use an indoor or outdoor rifle range, to possess, load and fire at such rifle range a rifle of not more than twenty-two caliber rim fire, the propelling force of which may be either gunpowder, air or springs, under the supervision, guidance and instruction of a duly qualified adult citizen of the United States who has been granted a certificate as an instructor in small arms practice issued by the United States Army, Navy or Marine Corps or by the Adjutant-General of the state of New York or by the National Rifle Association of America, a membership corporation duly organized under the laws of the state of New York, or of a duly commissioned officer of the United States Army, Navy, Marine Corps or Coast Guard or of the National Guard of the state of New York."

The large number of private and institutional summer camps in New York State can now legally conduct small arms instruction courses for youngsters 12 years of age or older. With the opening of Fall sessions in public and private schools there will be afforded an opportunity for riflemen to do an unusual amount of constructive work in the organization of junior rifle instruction groups—work which will be promptly reflected in the reduction in juvenile firearms accidents throughout the State.

Amphibious TRUCKS



"There's plenty of 'em left if you know where to go and how to talk their talk"

By Ralph J. Totten

ONE NIGHT LAST WINTER I was sitting in my combined studio, gun and trophy room, and, as so frequently happens, I picked up one of my rifles just for the pleasure of feeling it in my hands. This time it was the Mannlicher 6.5 mm., which long has been one of my especial pets. After putting the rifle back in the rack I opened my game book and found that the record of this trim little weapon was two deer, one roedeer, one chamois, one fox, six wild turkeys and nine geese.

As I glanced over the Mannlicher's bag I was shocked to find that the last entry was dated 1926! Could it be possible that I hadn't fired that rifle at game for all those years? That was correct, all right. From July 1926 until I returned in 1937 I had lived in Africa, and had turned to the more powerful .30-'06, the double .360 or the double .470. There were times when even the last, which I had nicknamed "The Government Mule," seemed too light and I looked with mild longing at a .505 Gibbs used by one of my friends. On my home leaves I had brought only my duck gun, and since my retirement, conditions of health had made a Florida trip impossible.

Those conditions, however, had vanished, so I made up my mind then and there to have a Florida trip that very winter, taking the Mannlicher and a quail gun with me, and putting a 'Glades turkey hunt on the "must" list. Right at the start of my preparations for my southern trek I struck a snag. I was unable to find a cartridge loaded with a full-jacketed bullet for the little rifle, and I greatly feared that a soft-nosed bullet would tear a turkey too badly.

I had been told that the Tamiami Trail and many other new roads and drainage ditches had turned my formerly almost private wilderness, the Everglades, into a tourists' playground, and that the hunting had been spoiled, so I probably wouldn't see a turkey. I was determined to go anyway, and hoped that if I did find a turkey, at comparatively short distances the bullets wouldn't mushroom greatly and spoil too much meat. Anyway I'd have a try at calling one of the elusive chaps, and use the soft-nosed bullets.

Reaching Naples I made inquiries and found that my old guide, Roscoe Walker, had a job elsewhere and was unavailable; the local reports as to hunting were most discouraging. "Too late for quail," they told me, "they've been pretty well cleaned out."

"The deer have all been slaughtered by the State on account of tick fever. Turkeys? Oh, they're pretty scarce. Have to go in mighty deep to find one."

Finally, one man who seemed to know a little more

and TURKEYS

about local conditions said to me: "Why don't you see Leon? He's got a 'woods buggy' and can get deep into the swamps where there *is* some game."

After a great deal of trouble I found where Leon lived, and managed to catch him at home. He was a big, good-looking youngster with keen eyes and an engaging grin; right then the whole pessimistic outlook I had acquired disappeared like magic.

"Take you turkey huntin'? You bet I can. Sure, they's plenty of 'em left if you know where to go and how to talk their talk."

His optimism, like his grin, was infectious, and in no time at all we had set a date and come to terms for a trip to the woods. He was to furnish transportation, tent, bedding and food, and get me to where the turkeys were. I was to take my personal outfit and try to hit 'em if we found 'em.

When he learned that I intended using a rifle, he was not quite so sanguine. "Nem'mind," he said, "ef I call 'em up right on top of us, I'll pass you my ol' pump gun an' you kin git yose'f a mess."

On the agreed morning I drove my car to Leon's house, left it there and shifted my things to the famous "woods buggy." This was my first sight of the contraption—a ton-and-a-half truck with unusually high clearance. It had great balloon tired wheels in front, and double wheels on each side in the rear. For very soft, swampy going two additional wheels could be added, one on each side, so as to make six rear wheels. Our trip, however, was over roads with a sand base, and the four big rear wheels with chains were sufficient. With four speeds forward, that old "buggy" could just about go anywhere, provided the combined mud and water were not over three feet deep. It most certainly was amphibious.

For fifteen minutes or so our way lay over paved roads, and then we turned off onto a sandy road, dry at that point. That didn't last very long, though, and within three-quarters of an hour we were in two inches of water which steadily got deeper until at places we sloshed through 18 inches. For the next two or three hours dry land was scarce, with only occasional bits of palmetto scrub islands. About noon Leon picked out a moderately dry island for a possible camp site, and we stopped to eat our bit of lunch.

"We'll look around here," Leon suggested, "and see if they's any turkey sign. If not, we'll move on to another set of hammocks."

He'd warned me that most of our work would be done in water, as this had been one of the rainiest winters in many years, so I had a pair of waterproof knee boots. We made quite a circle, finding several small islands with soft mud or sand around the edges where we searched diligently for turkey sign, but with very little success. As we swung back toward the truck a huge 'glades fox squirrel with a body as large as a medium size rabbit ran along the ground and up a dead cypress tree ahead of us.

"He's good eatin' ", said Leon, "and they don't seem to be any turkeys 'round this part, so I'm gonna see if I can't git him with the shotgun."

I was getting tired and sat down on a stump while he tried to get a shot at the squirrel in a tree 30 or 40 yards away. After a while I saw him flat on a limb at the top of the tree. Only his big head showed up plainly from where I sat, and I knew that to one underneath the tree, he couldn't be seen at all. I sat down with my back against the stump and rested my elbows on my knees. Taking all the time in the world I eased off the shot.

Leon, who was working around the tree, swung about to see why I was shooting, and the big squirrel, minus his head, almost dropped on top of him. Looking a bit sheepish, he brought the squirrel to where I was.

"Reckon if I kin call 'em up, you kin hit 'em," was his only comment.

After that we went back to the "buggy" and shifted to another section some four or five miles across country where we found eight or ten acres of quite dry land, with pines and cabbage palms surrounded by the never-ending cypress swamps. There wouldn't be time enough to move again that day if we expected to do any hunting, so we partially made camp before starting out again. About five o'clock we got to a spot where there was a series of thickly grown bayheads on one side, and a few scrub palmettos on the other.

The "woods buggy" could just about go anywhere. With high clearance and big balloon tires it certainly was "amphibious"

As we worked quietly along, Leon stopped and pointed, "Look!" he whispered, "there's a turkey right between those scrubs."

I stared in that direction and saw a young gobbler feeding in the sparse grass about a hundred yards away. He hadn't seen us, so we got behind some bushes and Leon began to work his caller. He uses the cedar box call with a piece of slate of the same type as mine, but he had made and tuned his himself. He was a real master at the game.

The pleading "prts" and "long calls" of the wild turkey hen were broadcast, but our young gobbler didn't seem to be greatly interested, though he did come a little nearer. Apparently deciding that he didn't care about that particular hen, Mr. Gobbler started circling us, and seemed to get farther away. I was in a bad position for a shot, having nothing with which to steady myself or my rifle. Of course, I *could* have sat down and put my elbows on my knees, but we were standing in six inches of water, with no dry land close by, and the idea

U. S. Forest Service

Roosting time in oak trees of Wichita Game Preserve

of putting my little "sitter" down in that very wet water didn't appeal to me.

So perforce I tried a shot offhand. It was almost good —just a little too high, knocking a couple of feathers from the turkey's back. At the shot our young gobbler went dashing away in wild panic, and two young hens we hadn't seen flushed and flew into the scrub some two hundred yards ahead of us. We worked down into a drier section for another hundred yards following up the direction that the hens had taken, then sat down in a thick bit and began to call. One of the hens answered, and kept answering for the next half hour, but, probably still alarmed by the shot, wouldn't come any closer.

Leon whispered: "It's getting pretty close to roosting time. Ef we kin keep her clost by, we'll hear her roost, and then maybe you kin git another shot."

The sun was gradually sinking, and at last when there was only a little of it in sight, we heard the beat of heavy wings and knew that the lady had gone upstairs to her cypress limb bed-chamber. In another ten minutes it would be sundown and against the law to hunt, so we couldn't wait for the turkey to settle down. As rapidly and silently as possible we worked along the edge of the bayhead, searching the trees for that rounder, denser lump that would be a turkey and not a bunch of airplant foliage. We were in ankle deep water, and no matter how hard we tried to be quiet, it sounded to me like a herd of cattle splashing along.

Suddenly Leon stopped with one foot in the air, and stiffened like a bird dog. "There she is, or I'll eat my hat."

I followed his pointing finger with my eyes, but it was just a bump on a limb to me. Raising my rifle, I looked through the four power 'scope and like magic the lump changed to a turkey, on the alert and looking straight at us.

"Reckon you kit hit her from here?" inquired Leon. "Ef we try to git any closter she's sho goin' to fly."

It was getting darker and the dense shade of the 'head made it worse. I couldn't forget missing the gobbler, but there was nothing to do but try. I shifted my position so I had the trunk of a sapling to steady my rifle, settled the picket of the 'scope on the turkey's breast, stopped breathing for a moment and squeezed the trigger.

Tired from unaccustomed walking in water and mud, wet to the waist from splashings, and chilled by the searching north wind, I suddenly felt fresh, dry, warm and comfortable as the heavy body plummeted straight down through the branches and splashed into the water.

"Stay right here and keep you' eye on the tree she was in, while I go find her," instructed Leon. "Looks like you smacked her plum center!"

After a few minutes search he came back with a fine fat hen. The bullet had hit her center in the breast, not doing a great deal of damage in front, but tearing a piece out of her back as big as my two fists.

As we started our splashing walk back to camp, Leon said: "Ef you kin hit 'em all in front you won't waste *too* much meat, but gosh almighty! you sho' did make a mess outen her back! I don't hold with shooting turkeys with a bear rifle."

I grinned at the disapproval in his tone, and said quietly: "What's that you have in your left hand?"

With a sharp look from those live black eyes, he answered: "Why, it's a turkey, ain't it?"

"I thought maybe you'd forgotten we had a turkey," I said, and after a bit continued: "Think you could have splashed through that deep water close enough for a shot with the pump gun without scaring the bird away?"

Then he turned his full grin on me. "Hadn't thought of that. I'd-a had to wait 'til mornin', then maybe she'd of got away. As 'tis, we got us a turkey, and we ain't got to go back there in the mornin'."

After a good meal of steak, cornmeal mush, gravy, bread and butter and some canned peaches, we were soon in bed and, it seemed to me, sooner up again. We had finished our breakfast by the time a very faint grey was showing in the east and were on the way; in the opposite direction from our last night's hunt, but where Leon said there was some good turkey country.

As soon as it was light enough I could see that we were working along a series of bayheads interspersed with pine islands, palmetto scrub and cabbage palm groves. Night herons, with their harsh croaking cries, were returning to their roosts in the dense 'heads, while ordinary herons, grey, blue and white, ibises and snowy egrets were beginning their day's fishing. We saw innumerable 'coon

and wildcat tracks, a few deer tracks and every little while fresh turkey "sign." At intervals we would stop and sit down on a log or stump while Leon would call for a few minutes. I flatter myself that I'm pretty good with a box call, but he was so much better that I didn't try to do any calling on that trip.

Around nine o'clock we ran across two fat 'coons having an argument on the ground. They scuttled up a couple of cypresses and, high up, flattened their bodies to the trees with forelegs clasped all the way around the slender trunks. With their heads tucked tightly down against their furry arms they were quite an amusing sight, and I longed for my camera; but those opportunities for pictures never seem to occur when I'm prepared. In my native Tennessee we would eat a 'coon, but only the negroes ate 'possums. In Alabama many people will eat 'possums, but not 'coons. And, in Florida, they won't eat either one.

About ten o'clock, as we were working our way back toward camp, we stopped in some scrub for a smoke, and Leon gave a few calls as he had done every ten or fifteen minutes all morning. Almost instantly there was an answer from the cabbage woods ahead of us, and probably 200 yards away. Crushing out our cigarettes, Leon crouched down in the thickest cover and gave a few "prts," while I worked forward to the edge of the scrub where I could see for 80 or 90 yards through the growth, yet was pretty well concealed from the sharp eyes that I knew would soon be searching every inch of our shelter.

Leon worked his call beautifully with not too frequent clucks and an occasional soft "long call." Sometimes we'd get an answer, and sometimes not. Sometimes it sounded closer, and sometimes farther away.

"That's an old tom," whispered Leon. "Maybe the old son of a gun will show us his beard, an' maybe he's too darned smart."

There passed an agonizing half hour, but the last ten minutes were without any answer to Leon's pleading calls.

"Keep a-watching," he whispered, "likely he's slipping up to have a look."

I sat still as a statue, although I wanted to slap at a mosquito, and strained my eyes all along the opening in the foreground. Suddenly I saw a bit of movement to the left. Shifting my head an inch or two I could see a big gobbler about 70 yards away, his body partly concealed by a palm leaf, looking straight at me. After what seemed like an age he lowered his head and pecked at something on the ground, giving me a chance to swing the Mannlicher onto him. He moved slightly forward so I could see his whole body, and I squeezed off the trigger.

At the crash of the shot we both sprang to our feet. One gobbler flushed from the scrub and flew straight away. Another legged it across the more open cypress to our right and a third could be seen disappearing in the distance.

"Gosh damn it! They was a bunch of 'em!" said Leon disgustedly. "Whyn't you wait an' I'd a brought 'em right up into our laps! Which 'un did you shoot at?"

"The big old gobbler over by that stump," I replied, pointing.

As we walked forward, Leon muttered: "Shucks, we ought got three or four of them gobblers."

"Two turkeys is the legal possession limit," I answered. "Let's pick him up and get back to Naples."

Leon twisted around and looked at me. "What you mean, pick him up? Did ya git one? Hell, I thought you missed!"

We found our bird in the little opening. The soft nosed bullet had hit him on the near wing bone and taken most of the far wing away with it, but the best of the breast meat was left.

On our way back to Naples, we saw a bunch of five or six young gobblers scuttling off, and a little later, two hens. The panthers, deer and bears might be all gone; the quail scarce, and hard to find; in general, the hunting not what it used to be; but Leon and I had seen or heard some 15 turkeys on the trip, and that's a lot of turkeys for this day and time.

I love that Florida Everglade country, and I love sitting in the shade of a cabbage palm with my cedar box, trying to outwit a smart old gobbler; but I've always used a rifle for this work and I didn't want to change, so after I got back to Washington I got busy on the problem. Through an advertisement in THE RIFLEMAN I bought 100 Russian military cartridges for the Mannlicher, with full jacketed bullets, but when I tried them out I found to my intense disappointment that almost every one misfired.

I carried my troubles to my friend Col. Townsend Whelen, and a satisfactory solution was found. We had the bullets drawn from fifty of the old Russians and from fifty American cartridges for the 6.5 mm., then had the full jacketed bullets re-set in the American cases with the original powder charge. The result is all that could be desired.

I'm going back to the land of sand, pine trees and grey cypress swamps this winter; Leon and the old "woods buggy" will be waiting for me, rarin' to go; and I'll sit in a thick cabbage woods scraping a cedar box on a piece of slate, and, as they say in some business letters, "hoping for an early reply."

"Leon gave a few calls as he had all morning. Almost instantly there was an answer from the woods ahead"

GETTING *the* RANGE

By COLONEL TOWNSEND WHELEN

TO BE SURE OF A HIT, THE RIFLEMAN MUST KNOW HIS TRAJECTORY AND ABLY ESTIMATE DISTANCE

AS LONG AS WE CONFINE our rifle shooting to the target range where distances are measured, and we know exactly how far we are shooting, we can forget about flatness of trajectory or estimates of distance. But when we come to practical field shooting at distances beyond "point-blank range" these matters become of very vital interest.

It is practical to define "point-blank range" as that distance up to which our bullet will travel in a flat enough line that we do not have to estimate or allow for range. If the target is a squirrel's head and we use a .22 Long Rifle Regular, this distance would be about 65 yards. With the rifle sighted for 50 yards the trajectory will not carry the bullet out of a 1-inch circle up to 65 yards if we are aiming at the center of the head. At a woodchuck with the Hornet cartridge, point-blank range will be about 175 yards if the rifle is sighted to strike 1-inch high at 100 yards. In this case it will only drop about an inch low at 175 yards. If we fire the .30-'06 at a deer or the head of a Jap, which would be about the size of an 8-inch bullseye, the point-blank range will be about 225 yards, the bullet flying only 2½ inches high at 100, and dropping a couple of inches low at 225 yards, with the rifle sighted for 200 yards. Of course, if the average shot drops 2 inches low at 225 yards, some of the shots are going to strike 4 inches low, and some will not seem to drop at all, assuming that the rifle and cartridge will make a 4-inch group at this distance. But even so, up to 225 yards the vital 8-inch bull will not be missed when the aim and squeeze are correct.

Beyond point-blank range the experienced hunter must estimate the distance and aim higher to allow for the drop of the bullet. To insure a hit he must, therefore, be fairly good at estimating distance and he must know his trajectory, particularly the drop of the bullet at various distances beyond point-blank range. The soldier's problem is slightly different, and he sets his sights for the estimate of the distance, or at the range his platoon commander designates.

We are more or less familiar with the trajectory tables published by the various ammunition companies. These height figures generally are the verticals at half range above a straight line from the muzzle to the bullet hole in the target. This is the height above the line M-T in Figure 1. Instead of these figures, what the rifleman would rather know is the mid-distance height above the *line of aim*. This distance is always a little less than that above the base line, and depends on how high the top of the front sight or the cross hairs of a scope are above the axis of the bore. In Figure 1 this sight height has been assumed as 1 inch, and when shooting at 200 yards the mid-distance height of trajectory above the line of aim (S-T) is only 2½ inches for the cartridge we shall discuss.

This 200-yard trajectory all falls within the point-blank range as it was defined above. Still more important to the rifleman is the trajectory beyond this distance, or beyond the distance for which his sights are adjusted. For example, with his rifle sighted for 200 yards he must be able to figure how far below the line of aim his bullets will drop at 300 or at 400 yards.

The angles of elevation for the .30-'06 cartridge with the 180-grain pointed bullet, having a muzzle-velocity of 2,700 feet per second, are:

100 yards	2.5	minutes
200 "	5.0	"
300 "	8.0	"
400 "	11.5	"
500 "	15.0	"
600 "	19.0	"
800 "	29.0	"
1000 "	42.0	"

When you have tables of angles of elevation figured in this way for all popular cartridges, you can easily calculate any trajectory you wish for any cartridge. These tables may be found in my book "The Hunting Rifle," and in the Parker-Whelen Catalog.

With our rifle sighted for 200 yards, we lack 3 minutes of being sighted high enough for 300 yards. One minute at 300 yards equals 3 inches. The bullet, therefore, drops 9 inches at 300 yards. With the rifle sighted for 200 yards, we are shy 6½ minutes of being sighted high enough for 400 yards. A minute at 400 yards equals 4 inches. The bullet, therefore, will drop 26 inches at 400 yards. Remember once again: *A minute equals an inch per hundred yards.*

Figuring in this manner, the rifleman can arrive at a really useful set of trajectory figures. For the .30-'06 we now have:

Rifle Sighted to strike point of aim at 200 yards.
At 100 yards bullet strikes 2.5 inches high.
" 200 " " " point of aim.
" 300 " " " 9.0 inches low.
" 400 " " " 26.0 " "

It is convenient to write these practical trajectory figures as follows:

	2.5	0			In.
.30-'06–180–2700 – 100	200	300	400		Yards
	0	9	26		In.

The middle line is the distance in yards; the upper line the trajectory or height of bullet strike above the line of aim in inches, and the lower the drop below the line of aim.

Now we really have something to go to bat with. In field shooting, aim exactly where you wish your bullet to strike and you won't miss that spot by more than a couple of inches provided the actual distance is not more than 225 yards. If you think the distance is somewhere between 250 and 300 yards aim higher up on the shoulders

of a buck, or at the top of the head of a Jap as he peers over an embankment, and your bullet dropping from 5 to 9 inches gives you a good vital hit. If you are both a fine rifle shot and a close estimator of distances, and you think the range is very close to 400 yards, hold what you judge to be two feet above where you wish the bullet to strike, and the chances are you will make a good central hit.

Unfortunately, many of us are not yet "experts". We have not learned by long experience to assume a uniform firing position with the same tension on the rifle on any kind of ground. We have not learned to estimate distance within 15 per cent one way or the other. In practice, this means that we cannot dependably hit a target at much over 350 yards. Instead we should attempt to stalk closer or hold our fire for a better opportunity because the chances are all against making a hit. Trying to hit game at 350 yards or over, except by a very highly trained hunter-rifleman, will result in misses or too often a hit that only wounds, and hence is very unsportsmanlike. Shooting at an enemy at over 350 yards, unless the range has been accurately established with a range finder, by tracer bullets, or by observation of fire will result in such a large proportion of misses as to prove a waste of ammunition, diminish the soldier's morale and increase the morale of the enemy.

It is at these long distances (250 to 400 yards for the .30-'06) that the estimation of range becomes so important. As an example of what a small error will do, suppose with rifle sighted in for 200 yards you estimate the distance to be 400 yards, and you hold over for a 2-foot drop of the bullet, or set your sights at the 400-yard elevation. Then if the distance happens actually to be 325 yards, your bullet will strike a foot high, or if it actually is 450 yards the bullet would strike a foot low. It takes a mighty good judge of distance to come within 50 yards of the true distance out around 400 yards.

everything is in focus anyway. But a range finder with a base of only 3 or 4 inches could not be satisfactory even at 200 yards. The Army does have a self-contained base range finder which is issued to machine gun and heavy weapon companies that will give the range with an error of not more than 5 per cent up to 2,000 yards. It is about a yard long, weighs twenty pounds or so and costs close to a thousand dollars! Anyone who can invent a light pocket range finder, accurate and reliable to within 5 per cent up to 1,000 yards, will never have to work again—in spite of excess profits taxes!

The only methods of estimating range that are instantly available to the field shot, the hunter or the individual soldier are by the eye and by subtending some object of known width on the target. The system of eye estimation which has proved most practical is to become thoroughly familiar with the appearance of 100 yards as a unit of measure. Learn by practice just how this distance looks over all sorts of country—level, up or down hill and across depressions and how distinctly various objects that are common in your country, grass, bushes and trees can be seen at 100 yards. Measure off 100 yards on level ground and on average slopes, pace this distance using your normal pace and walking rate, and see how many paces you must take to cover the distance. Then every day when walking to work or for exercise pace off 100 yards, turn around and look back over the distance and see just how it looks. After a little practice you can apply this unit to any distance with a very fair chance of coming close to the actual range. Over a certain distance, for example, you seem to be able to apply your 100-yard unit just about four times, therefore you estimate it to be 400 yards. At first you will make errors, perhaps as much as 15 per cent, but gradually you should be able to narrow them down to perhaps 10 per cent, which is mighty good. Occasionally you will be way off in your estimate and should take

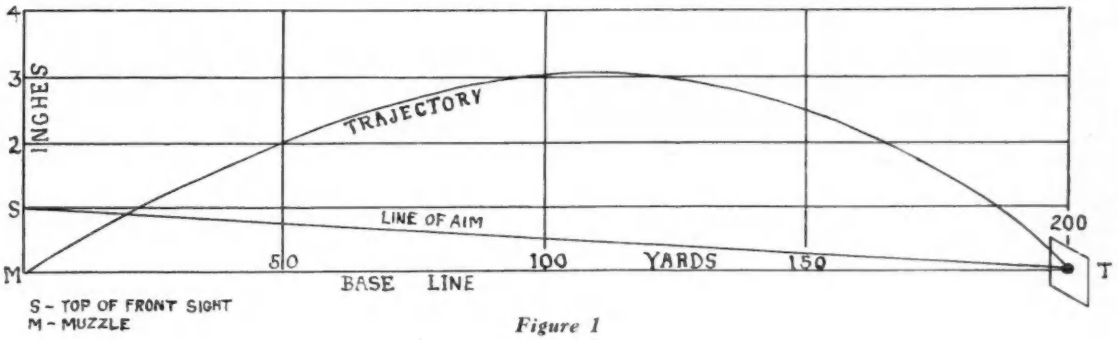


Figure 1

The hunter-rifleman or the individual infantryman has to estimate the distance with his eye or by checking against an object of known width on a target of known dimensions. There is no other practical way.

Shooters write to me almost monthly asking where they can get a workable range finder. There is no such instrument that would be of any practical use to a rifleman, and I doubt very much if it will ever be possible to construct one. It is true that modern cameras are often fitted with range finders that are quite accurate up to about 40 feet, and accurate enough for photographic purposes up to 100 feet, beyond which distance

advantage of such a wild guess to find out why you made it.

Objects seem nearer in bright light, when there is sharp color contrast with the background, when looking over water, snow, or a uniform surface, when looking downward or over a depression which is hidden, and in the very clear atmosphere of high altitudes. Objects appear more distant when looking over a depression most of which is visible, in poor light or fog, when only a small part of the object can be seen, and when looking upward.

Range determination by subtending is done by holding up some object of known width and seeing how much of

Rifle Remington DU PONT News

Possibles and Impossibles

by **FRANK J. KAHRS**

Shooters will be pretty much interested, I think, in the story here about the first international rifle matches. When the Americans returned victorious from Dollymount in 1875, they became the heroes of the day. Currier and Ives made lithographs about them, and at least two popular songs commemorated their trip. One went:

"We are the plucky little team of Yankee Shooteleers
Who marched away to Dollymount and won the Irish cheers
We scored a bull's eye every pop—
Oh nine times out of ten
And won a cup of friendship from
Warm-hearted Irishmen."

* * *

Today, rifle shooting is again coming in for a great deal of attention. And while some of the bigger matches are off, there will probably be more people taking part in rifle shooting this year at clubs all over the country than there have ever been before.

* * *

One of the biggest matches this year will be the Eastern Small Bore Rifle and Pistol Matches scheduled for the Marine Corps training center at Quantico, Virginia, July 2nd, 3rd, 4th and 5th inclusive. This will take the place of the Camp Ritchie classic. The first two days will be devoted to the rifle and pistol schools. The first day these schools will be held jointly, the second day separately. All of the school will be under Marine Corps officers. Small-bore instructors will be shown the fundamentals of military marksmanship, and their application during the progressive phases of target practice.

The third and fourth days will be devoted to the regular Eastern Small Bore rifle and pistol matches. There will also be women competitors in both rifle and pistol events, and arrangements have been made for a separate "Squaw" camp accommodating about 25 women.

We hope to see all our shooting friends there, at the school and on the firing line. It's a fine place to be in these times, if you can possibly make it.

* * *

Since the beginning of the war, the great importance of good rifle training and marksmanship has become more and more apparent. And now a school such as that planned at Quantico makes the rifle instructor even more valuable, because this school will show the proper course of instruction for teaching, and the operating fundamentals of the service rifle. This will help the American rifleman to contribute even more substantially to the war effort than he has been able to in the past, and make the transition from target guns to service weapons easier should the need for such a change arise.

* * *

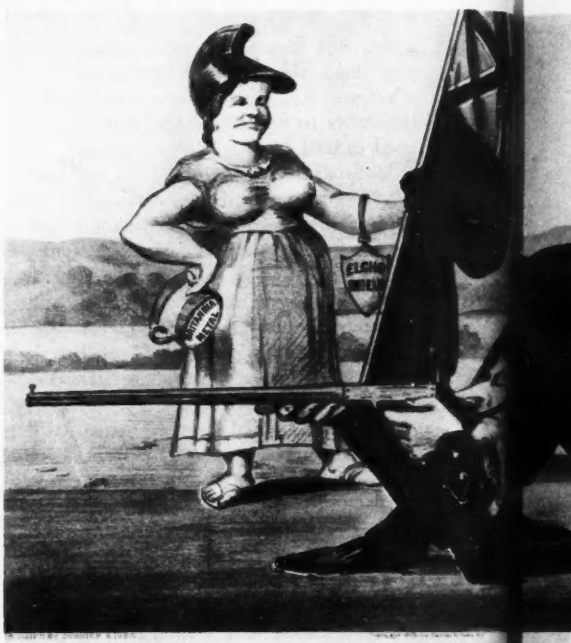
A lot of shooters are being called into active service as time goes on. If you're scheduled to go, be sure to protect your gun when you lay it away for the duration—oil it with Remington Oil, and use Remington gun grease on the inside and outside of the barrel to prevent rusting and guard its fine accuracy. It's a good idea to rub some oil or wax into the stock at the same time.

* * *

A shooter friend of ours brought the following to our attention. A number of clubs may have already done something along these lines, but it deserves the attention of every club. And that's the salvage of cartridge brass for Uncle Sam. There are a lot of .22 and other hulls around every club that would make excellent brass scrap, which the club could sell or give to a charitable organization. Some clubs with fixed target butts could probably reclaim some lead for patriotic purposes, too.

* * *

Coming back to the story of the Creedmoor and Dollymount matches of 1874 and 1875, Yankee rifle shooters still have two great centerfire service rifle trophies that go back to these matches. One is the Wimbledon Cup described here. The other is the Leech Cup, made of Irish silver, and presented by the captain of the Irish team, Major Leech, to the American team after the latter's victory at Creedmoor. These trophies were always included in the Camp Perry matches in the past, and will doubtless be shot for again when the war is over.



THE QUEEN'S N !
Wimbledon Style !

The First Interna

Remington has been a by-word with American Target Shooters since the very beginning!

SINCE the days of the first colonists, a gun has be Americans' constant companion and provider. Wi it, the pioneers pushed our frontiers ever westwar It made them self-reliant, independent, resourcefu Just as a gun furnished food and helped mould t national character, so it was also a source of recre tion and pleasure. "Shooting at a mark" is as Ame can as Huckleberry Finn or cowboy ballads.

THE FIRST INTERNATIONAL MATCHES

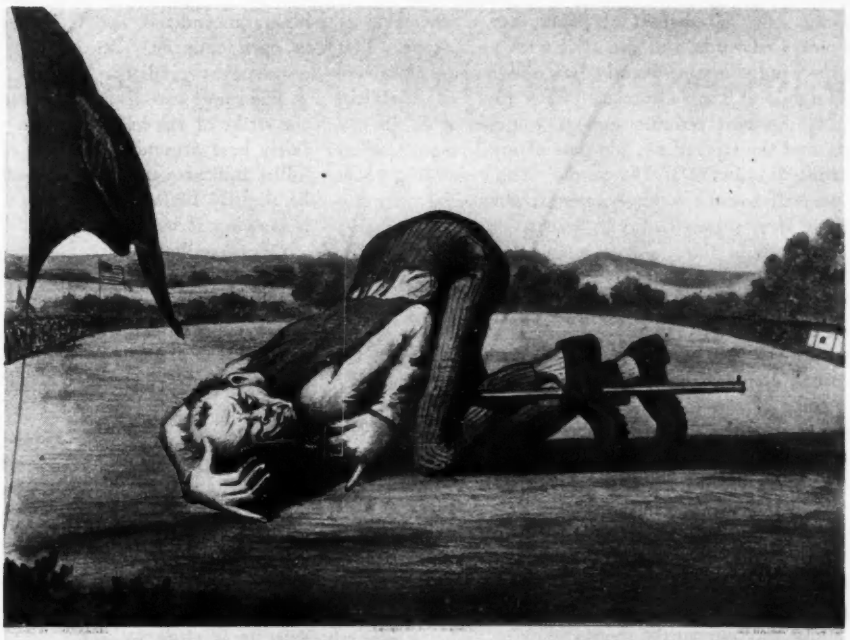
American target shooting existed on a very impromp basis until 1874. That year, the Amateur Rifle Cl of New York accepted the challenge of the Irish Eig winners of the Elcho Shield, emblem of the lon distance shooting championship of the British Isl The shoot was scheduled at the Creedmoor, L. I range of the newly formed American Rifle Associ tion. The shooting positions (one of them was lyi flat on the back) must have prompted the Currier a Ives prints shown above.

The teams shot their eight hundred, then their ni hundred yard targets. The Americans led by a sca

seven reach single Bodi point would took up—

The Irelar 929. Isles, Here with compe with bledo remai trophi a littl in the

There get re



ERIN GO BRAGH !

The Great International Rifle Match, Dollymount, July 1875.

...ternational Rifle Matches as seen by Currier and Ives

seven points when the final thousand-yard match was reached. Here the Irish forged ahead, and led by a single point. The last American shooter, Colonel John Bodine, came up. A bull's-eye, which counted four points, would put the American three ahead—a miss would give the matches to the Irish. He stretched, took careful aim, and fired. A tremendous shout went up—he had hit the bull's-eye, over half a mile away.

RETURN ENGAGEMENT

The next year, the Americans went to Dollymount, Ireland, where they again won, by a score of 967 to 929. They then staged a good-will tour of the British Isles, which included a stop at the range at Wimbledon. Here Princess Louise presented the American team with a cup, which the American team members then competed for. It was won by Major Henry Fulton with 133 out of a possible 150. He placed the Wimbledon Cup in competition the next year, and it has remained one of the two great American long-distance trophies ever since. Messieurs Currier and Ives poked a little good-natured fun at the Wimbledon episode in the print shown on the left.

REMINGTON'S PART

There was no American gun capable of accurate target results at 1000 yards when the Americans accepted the Irish challenge. So Remington promptly set to work to produce a breech-loader (shown below) that could shoot that far accurately. Remington had been making guns for "Yankee shooteleers" since 1816, so it was logical that American target shooters should turn to this recognized manufacturer to supply their needs. Remington guns and ammunition have held an honored place with American marksmen through the years, from the very beginning of target shooting as an organized sport.

Today, Remington research, manufacturing facilities, and long experience are being applied to our common cause—victory for our country. When peace returns, the lessons we're learning today will mean even better grouping characteristics and uniformity in ammunition, even smoother gun performance for America's target shooting fraternity than ever before. Remington Arms Company, Inc., Bridgeport, Conn.

Remington

DU PONT

the target it covers. A telescope sight with a post reticule is fine for this purpose because it is uniform in its appearance. Set up a sheet of paper just a foot wide at 100 measured yards, and aim at it with your scope. You can then judge almost exactly how much the post covers or subtends at that distance. With my Zeiss Zielklein the flat top post reticule appears 7 inches wide at 100 yards, and the tapered flat top post of my Lyman Alaskan subtends 3½-inches at 100 yards. You must test yours for yourself because reticule wires are not uniform by any means. If it subtends, say 6 inches, and assuming that a deer's body is about a foot wide when facing straight towards you, or 3 feet from shoulder to rump when standing side on, you can then calculate about how far away the animal is.

Such a calculation will, of course, be subject to numerous small errors as you will scarcely ever be sure of the exact size of the target. A deer's body may be much larger or smaller than the dimensions given. A woodchuck may be about 6 inches wide when sitting up, but if it is more or less you will have a different answer to your calculation. Perhaps a better measurement can be based on the distance between the eyes, which on a man are about 2¾ inches apart, large deer and mountain goats about 5 inches, and on a very large big horn ram about 7 inches. The catch is that small targets like these can only be seen with a scope.

If you have no scope there is one thing that every hunter and soldier always has in his pocket—matches. Hold up the bottom end of a match at stiff arms length and find out how wide it appears on a 100-yard target. Of course, it will differ with length of arm and width of match stick. Those I am using subtend almost exactly a foot at 100 yards for my length of arm.

I think it is best to use both methods if you have time. That is, estimate by eye and estimate by subtending, and then take an average of the two. Each method acts as a check on the other. If when you check it by eye it looks like 300 yards, but when you subtend with a scope reticule or match it looks more like 200 yards, decide to aim or set your sights as though it were 250 yards. This sounds as if this would take a lot of time, but with a little practice the estimates can be made almost instantly. Too, when the distance is so long that you have to estimate range the chances are that you will have ample time for it. As a rule long shots are not hurried shots.

In the Army it is often possible to determine the range by using tracer cartridges, the bullet of which follows very closely the trajectory of the service ball cartridge. The scout or leader first estimates the range by eye, then fires a tracer bullet with that sight setting and continues to fire and correct the sight setting until the bullets appear to strike the target. This sight setting is then given to the men of the organization who set their sights accordingly after due consideration of the elevation and zero of each individual's rifle. Such a method, of course, cannot be applied by the hunter. Tracer bullets are highly incendiary, and it would be unsafe to use them in open country. Besides, they are never available for purchase by civilians.

The range can also be checked by firing and observing the strike of the bullet, but only in open country on dry fairly bare ground. The puff of dust thrown up by the bullet indicates the striking point. The puff will always be slightly higher than the actual hit, and if the wind is blowing it will be carried with the wind more or less.

Occasionally a hunter who misses his game on the first shot may obtain a hit on a subsequent shot by thus observing where his bullet struck. Watching with binoculars a companion's dust puffs when he was shooting at woodchucks or prairie dogs at long range, I have several times been able to correct his aim so that he finally got a hit, the game being accommodating enough to remain in the meantime. That's where the hitch comes in—the game usually moves, and the second shot is apt to be a running one.

Flat top post reticule subtends 12″ at 200 yds. Jap's shoulders about 12″ broad so he is close to 200 yards away

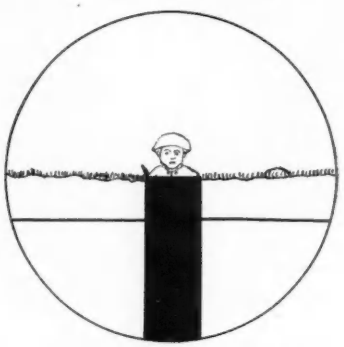


Figure 2

Observing the bullet puffs in this manner is a perfectly feasible method for correcting the sight setting in a military action over dusty ground. But for the hunter and the individual soldier the only practical method is that of estimating by the eye and subtending, and then either holding over for the drop of the bullet or setting the sights for the estimated distance.

In addition to knowledge of the trajectory and skill in estimating distance, skill in marksmanship is necessary. Unless the shooter can turn in consistently high scores at long range on the target, he has little chance of making hits on live targets no matter how well he may have learned trajectory and range estimation. Long range shooting is no game for the tyro, but the satisfaction of making a hit is such that the master rifleman considers it the highest and most interesting form of shooting, and the work and study necessary to become skilled at it will certainly pay.

An Army Dad's Advice to His Son:

"--better start getting ready"

Camp Wainwright,
June 15, 1942.

DEAR ART:

Congratulations on the sixteenth birthday!

It nearly slipped my mind because I am putting in some long hours. When a fellow gets past forty-five time goes fast, especially when he has one tough war under his belt and another on his plate.

We're pretty busy here. Training troops in wartime is no joke although it is easier than in 1917. We have more equipment and there is more cooperation all along the line. But a person who has never trained troops has no idea of the amount of work it takes to turn a recruit into a disciplined soldier even when the boys are as willing and intelligent as ours.

It isn't jealousy but we're getting a little peeved at the people who make our wartime publicity. You hear so much about helping the U.S.O. and the Red Cross and the Treasury and this and that. Did it ever occur to you that no one has ever suggested that we help George Marshall?

George Marshall? Well, he's a general and he's the Chief of Staff and nobody outside the Army pays much attention to him. Donald Nelson may think he has a lot to do and Bill Knudsen is earning his money, but when it comes to doing about all the work that one man can handle in twenty-four hours, I'll stay with George Marshall.

George Marshall is making the Army—all of it.

Most people think that they have done their full duty by sending their boys to camp. After that, it's the Army's job to turn them into soldiers. The good old American tradition—let George do it.

George is doing it—God knows how.

But George shouldn't have to do all of it. It isn't George Marshall's Army, it's ours. I'm for buying Bonds and building planes and contributing to the U.S.O.—they're all part of the war. But the Army that George Marshall is making, that's a big part of the war, also.

You're sixteen and you're in the middle of a war. You and no one else knows how long it will last. In spite of all the talk, we all know that we can't win this war by buying Bonds or making machinery. We're going to win this war just the same way we won the others—the hard way. By taking a beating and slugging it out until the other fellow quits.

Sooner or later, Art, you're going to be called for service, either in the Regular Forces or in the Home Guard. You're a man and you have a man's work to do.

You better start getting ready. Time flies!

I don't care so much about infantry drill—it has been simplified and any normal person can learn it in a week. But you better brush up on your Scouting Manual and go to a meeting once in a while, to get the hang of instructing recruits.

And get back in the groove with your shooting!

We have considerable difficulty with the rifle. It is rare to find a recruit who has had the proper basic training and in most cases we have to start all over again, unlearning the bad habits that have been picked up in shooting galleries or out in the field popping at tin cans. It is almost impossible to find a new man who can hold down an instructor's or even a coach's job. In my training group, we would almost guarantee a non-com's stripes to a man who can teach the elements of rifle marksmanship because a man who knows a rifle can learn the use of the other infantry weapons without difficulty.

You learned how to shoot, Art, but I think your training is "lop-sided". I can't remember ever having seen you shoot more than three or four position matches, although you were pretty good prone.

Prone shooting is useful shooting and I suppose that until this war came along, ninety per cent of the ammunition the American Army fired since 1865 was shot from the prone position. This war is somewhat different.

This is a fast war, running on wheels. Men shoot from moving automobiles and standing or kneeling, at other men in automobiles. Infantrymen use a half-kneeling position to sweep a handful of bullets at a

passing dive bomber. Men sit in L-shaped fox-holes and snipe at infiltrating enemies.

And there is a lot of good, sound, old-fashioned prone shooting, controlled for maximum effect by the good, sound, old-fashioned principles of musketry fire.

Dive bombers and automatic cannon may get the advertising but the infantryman who can use a rifle will win the war, just as he has won all the rest of them.

You can see, Art, that a modern soldier has to know more, instead of less, than the old-timer about a rifle. The new automatic M-1 takes considerable good judgment to use properly because if a fellow isn't careful, he'll be out of ammunition before the battle gets started and he can't send back to a refilling point because both he and the refilling point will be on the dead run, probably in opposite directions.

You have to shoot fast when the target appears, and quit quick when it vanishes. Remember there's a difference between shooting fast and shooting often! You have to hit something every time you press the trigger.

You know, from your experience on the high school team, how difficult it is to learn the simplest form of rifle work, prone shooting. It took a lot of time, didn't it?

Did it ever occur to you that we have to teach all that and more besides, during the training period, with the newspapers nudging at us for a big army in a hurry?

Did it ever occur to you that if our boys knew the fundamentals of rifle marksmanship before they came to camp, that we could start from there and give them their "college education" in the more complicated firing in half the time it now takes?

And did it ever occur to you that if you show up in camp a qualified, well-trained rifleman that some officer may break down and weep on your shoulder, praising the Lord for having lifted some of the load from George Marshall's back. And even if you don't want to be a non-com, someone might sew stripes on you in spite of yourself?

How are you going to go about it?

In the first place, I want you to take my 52 and take the Targetspot off it and put it away in the box which you will find in the bottom dresser drawer. 'Scopes are out for the duration. You are not going to be interested in making perfect scores, prone.

The 52? I thought I heard you gasp, but I meant it. We'll get another after the war and we might as well wear it out in a good cause. You can buy a few extra Bonds out of your paper route money, to cover up. We have a war to win, quick. Then I want you to put the blade sight on the front and use the Lyman rear. That makes a set about like the Army sights. That is to be your outfit for practical work.

Then I want you to learn everything in the Army Manual which I am sending you. If you are going to be an instructor, you'll have to teach exactly the same as every other instructor, otherwise there will be confusion. Learn it the right way, and learn it so you can teach it to others.

Next, you'll have to make some sighting bars and the other equipment. Follow the drawings in the Manual and make about six sets; so other fellows can use them.

Last, take the telescope off my Enfield Sporter and use that for sighting and position practice. You could have used my National Match Springfield, but I figured the Government needed it so I turned it in. After the war, we'll probably be using the M-1's anyway. If we don't win this war, we won't need anything. Hitler doesn't believe in letting folks own guns.

Be careful with your ammunition, Art, it's scarce. But don't be tight with it. If some fellow can't get any and he's going to be called out, lend him enough to get by. Someone will make it right with us after the war.

You actually don't need much ammunition. Any fellow who isn't willing to work conscientiously at the preliminary practice, isn't worth wasting ammunition on and you can learn more and teach more with the sighting bar equipment than with actual firing. You want to look at those .22's as if they cost a dollar apiece and when you fire one, paint teeth and spectacles on the bullseye. You won't be able to do much more than bare essentials at the start but that will be a great help to the Army. As you go along, you will add a few things to keep up interest and help your own shooting.

Position shooting is an essential because a soldier must be able to fire accurately in any position. Think it over, Art. You have to be a good prone shot to keep up your end with supporting fire and you ought to know your musketry rules, elevation, windage and all the rest, so you can work with the officer directing the work.

I want you to practice rolling into the prone position from standing. It may save your life some day, and it may go far toward winning the war. Don't spend fifteen minutes looking for a soft place with holes for your elbows. Stand five or ten yards behind the firing line, run up and go down into position Army style. You better practice that on the range, with two rounds in the magazine and another in a spare clip. Three shots and you have had a course of training in getting into position, firing and reloading. That's conserving critical materials, son, and really learning how to shoot in a practical way.

Then you want to simulate unknown ranges. You'll find that firing a .22 at two hundred yards comes pretty close to firing at unknown ranges, anyway, especially if the wind is blowing, but you can make it tougher. Get up a match with four other fellows and have the instructor "jimmy" all of the sights from nothing to ten minutes of angle, vertically and horizontally. Give each man two sighting shots and five for record—slow fire. Then line up five yards behind the line, run forward, flop and commence firing.

That'll teach you how to use sights.

You won't make any perfect scores and you may be glad to get a few eights but remember that a close shot will keep a Jap in his fox-hole and if you wound him, you will do more damage than if you kill him. Hospitals are a nuisance.

It wouldn't hurt any if you would dig a few fox-holes near the firing line and learn to shoot sitting the way a soldier has to do it. Don't allow any manufactured positions. What you want to bear down on is PRACTICAL shooting, not perfect scores. A good sitting match would consist of three shots, two in the magazine and one in an extra clip. From the standing position, or from a run, sit down and fire two rounds. Reload and fire the other. That's practical training.

Don't slight the kneeling position. It isn't so hot, for accuracy, but a kneeling man is a small target, especially in brushy country and there are plenty of places where the weeds are so high that you can't shoot prone or sitting.

Most soldiers are poor offhand shots and I really believe it is because they are working against a mental hazard. We have been harping on perfect scores so much that a man is ashamed to show an offhand target merely because it groups loosely. Don't do any offhand firing with the .22's at ranges over one hundred yards—fifty is better. But hold and squeeze just the same and make sure your position is correct. You won't do much extended firing from the offhand position because if you have many shots to fire, you'll have time to get into a steadier condition. But you ought to be able to fire one quick accurate shot offhand before you flop down. So set up a combination standing and sitting or standing and prone, first shot offhand before going to the other position.

To do this, start with the rifle at the READY and raise the piece at the whistle. You will learn to check your stance by the angle at which the rifle cuts across the target, and you might vary the match by having the range officer designate the target—calling ONE! or FIVE—just before blowing the whistle. That will teach you to swing and shoot, the way you will have to do when some Jap starts running through the weeds.

You can probably get some of the follows to help you rig up some targets like those "Swedes in the weeds" at Camp Perry. Remember? Silhouettes distributed around the high grass, a line and pulley with controls back of the firing line, for surprise fire. The officer can pop these up during a five shot match, and make you swing and fire and do some real guessing at distances.

You won't win any medals, Art, and your targets won't be worth framing but you'll be a good, practical shot when you get through. More than that, you'll be able to teach other fellows how to USE a rifle, as a weapon, instead of being just an animated rest for firing a complicated and delicate museum piece.

You won't hurt that $2, not by shooting it. You may knock a few chips off the stock, flopping into the prone position but stocks are cheap—cheaper than losing the war. I don't care if you wreck the whole darned thing, I don't need it anyway. I'm busy.

I have an idea you can interest a lot of fellows if you go about the thing practically. There is a good deal of criticism of fellows your age, Art. People say they are smart alecks and wild and hard to handle. That isn't true. I get along with hundreds of them all the time and they are O.K. The whole thing is that they have been handed so much baloney that they are fed up. They are perfectly willing to do anything provided it is sensible and useful and they can take a beating with the best soldiers of any nation, any time. But you have to get down to brass tacks with them, Art, and don't expect a 1942 recruit to do something just because you tell him to. He wants to know why and he expects you to be able to tell him or get rid of your stripes.

Why not? We're not rehearsing a musical comedy, Art. We're tangling with the most merciless military machine in history. Every man in every army in the world is fighting for his life as well as for his country. The chips are down and we are out this time, to live or die. If you're going to live through this thing, Art, you're going to have to know more than any soldier ever had to know since war began.

You better start learning. Time flies!

George Marshall can't teach you everything.

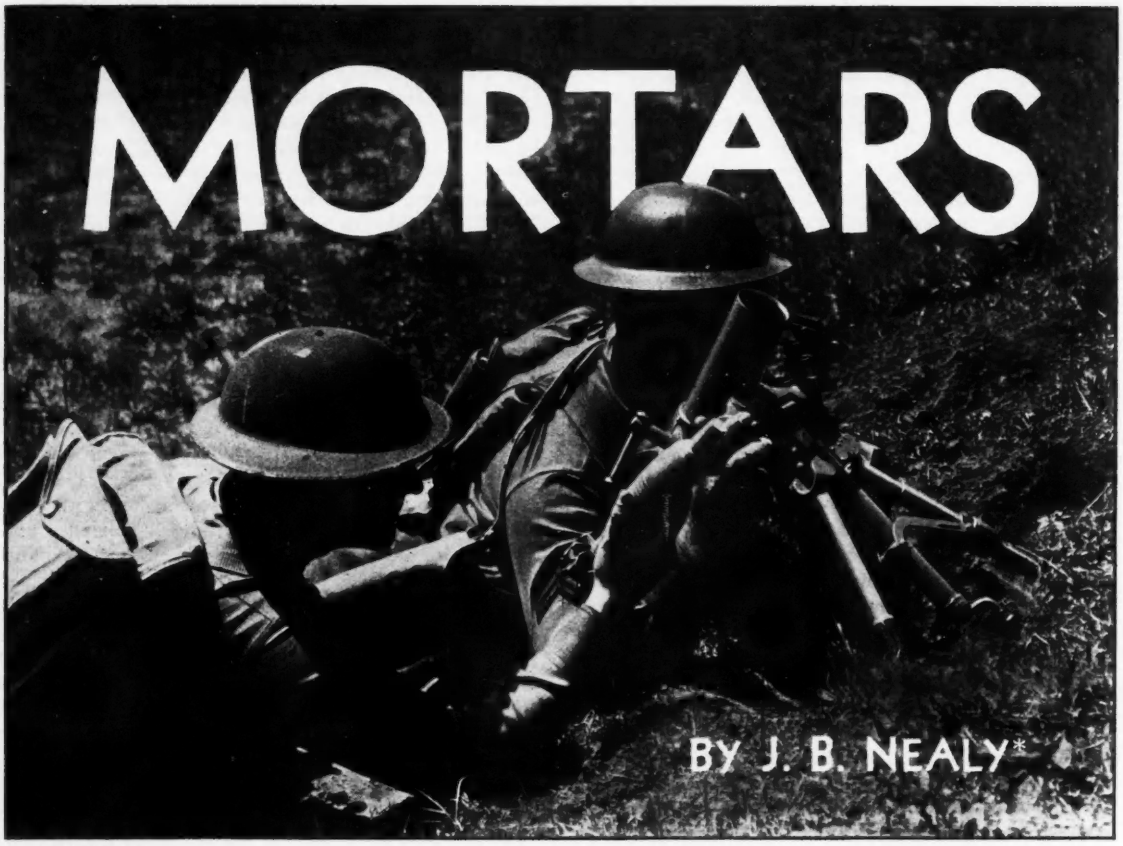
George is busy!

Your father,

JOHN MACALLISTER,
Capt. Inf. Res.
Replacement Trg. Center.
Camp Wainwright.

"FROM WHERE WE LOOK to the West the sun doesn't rise—it sets. And one day, when the might of our arms and the strength of our purpose has reached six thousand miles to do what it must and should, the sun that rises on the desperate, fanatic power that calls itself Nippon shall sink behind islands that know at last their place in a modern world. The force of our arms, now beginning its fight, shall smash alike the little Jap and his master, the Nazi, till their toughness is tired out and softened again, and their people have learned that the world is a place to be shared and built up, not grabbed and exploited."—*Infantry Journal*, January, 1942

MORTARS



BY J. B. NEALY*

Lambert, Philadelphia

THE TRENCH MORTAR is an entirely different weapon from the rifle in every respect but one—it is light and easily handled. Where the rifle has a flat trajectory and long range, the mortar has a high angle of fall and a short range. Where the rifle is employed to pick off single targets in full view, the mortar is used to search out mass targets concealed on the reverse slopes of hilly terrain or in trenches and woods. The solitary rifle bullet is replaced with a bomb of great destructive power. The mortar is a powerful weapon against enemy forces in modern warfare, just as it proved itself to be in World War I.

An infantry weapon, the mortar is so light that it can be carried easily by one or three men, and yet at close ranges it has the terrific plunging fire power of the 75- and 105-mm. howitzers. This is of inestimable advantage to infantry, whether on foot or motorized. Through its use the infantry can start a close-in artillery action at almost a moment's notice, in any direction desired, and can quickly shift the direction of fire to meet changing conditions. Great accuracy of fire is attained by the use of sights, fire control tables and by observation.

Assault troops can now blast their way through defenses which a few years ago were unassailable. Defiladed enemy positions, close in, can be overcome much more quickly with mortars than with artillery. Mortars are wonderfully effective against strong points, machine gun nests, pill boxes, and for the demolition of bridges, emplacements and protective buildings.

Artillery is usually some distance to the rear of the infantry, and concealed. This brings about several handi-

Masked infantrymen prepare to fire a chemical shell in the big 81-mm. mortar. Mission of chemical shell is to hinder enemy with smoke screen

* Advisory Specialist, Ordnance Department, U. S. A.

caps which lower the effectiveness of artillery in support of infantry. Among these defects are long range, flatness of trajectory, difficulty in control of indirect fire, losing the continuity of the support as offensive movement progresses and ineffectiveness in softening up enemy resistance.

The mortar fills the yawning gap between the light field gun and the hand grenade with its range of only 50 yards. It hurls highly destructive shells 2,500 or 3,000 yards with the alternative of progressively shortening these ranges with advancing action, either in assault or in defense. It can be employed by infantry immediately on those close-in targets it senses as presently most dangerous.

The usefulness of the mortar in attack as well as defense has already been demonstrated abroad in World War II. Concentrations of mortar companies are being employed successfully for mass fire against motorized infantry, antitank guns and machine gun nests. The mortar batteries accompany infantry and sometimes go ahead to soften up enemy positions for attacks. Mortars have a theoretical rate of fire of 35 rounds per minute, though this depends upon conditions being ideal and the crew perfectly trained. The normal rate is closer to 18 rounds.

Recognizing these advantages, the United States Army has organized full mortar batteries and assigned them to the infantry. The headquarters platoon of each rifle company employs the 60-mm. size in addition to light machine guns. The heavy weapons company, the supporting company of the battalion, employs the 81-mm. mortar together with .30 and .50 caliber machine guns. The new triangular division has been assigned a large number of the 60-mm. and 81-mm. mortars. The armored division has a somewhat smaller number, while the cavalry division is well supplied with 81-mm. mortars.

Mortar history dates back only to World War I when it was created by Sir Frederick Wilfrid Scott Stokes. A smooth bore affair of 3-inch caliber, and hurling an 11.7-pound shell 750 yards, it was used by both the British and American armies and became known as the Stokes trench mortar. About 1,300 were made for the U. S. Army and some are still in use. It was quite crude compared to our present types, but a most effective weapon nonetheless. It was further developed, after the war, by E. W. Brandt of France. Brandt improved the ammunition by streamlining the shell and attaching tail fins; this kept the shell from tumbling in the air, enormously improved its accuracy and greatly extended its range. Further improvements in the weapon itself followed, finally resulting in the 81-mm., which became known as the Stokes-Brandt mortar (1927).

Shortly after World War I the Ordnance Department of the U. S. Army experimented intensively with this type of weapon. Rifling, breech loading, wheeled carriages and various sizes were tried and discarded. Returning to the Stokes-Brandt model as a basis for further experimentation, the present models were developed and two sizes became standard, the 60-mm. and the 81-mm., as light enough for infantry handling. They are broken down and packed on men's backs or carried in the "ready" position on motorized vehicles.

The 60-mm. mortar crew consists of four men, one carrying the entire mortar assembly while the others pack the ammunition. The 81-mm. mortar crew has six, three assigned to the mortar proper, which breaks down into three loads, and three for carrying the shell. The weight of the 60-mm. including tube, mount and bipod is but 42 pounds—a light load for one soldier. The 81-mm. mortar and mount (base plate and bipod) has a total weight of 136 pounds. This breaks down into three loads: mortar tube, 44½ pounds; bipod, 46½ pounds; base plate, 45 pounds. The old Stokes 3-inch mortar weighed 110 pounds.

The mortar consists of three main parts—the barrel (tube), bipod and base plate. The barrel has a base cap with a ball which rotates in a socket on the base plate and the firing pin is screwed into this base cap. The bipod is quickly attached to a clamp on the barrel. The laying

Lambert

This 60-mm. mortar is packed by one man, its ammunition by three. Aiming is done by telescopic sight at side

(aiming) of this weapon is in many respects similar to that of any piece of artillery—by traversing and elevating.

Between the legs of the bipod is a guide tube with an elevating screw, and the mortar barrel is connected to the bipod assembly through a yoke on top of this elevating screw. Gear, pin and crank complete this elevating mechanism. The yoke contains the traversing mechanism, a horizontal screw operated by handwheel, and a couple of small shock absorbers. One leg is telescoped so that the mortar can be leveled. The sighting apparatus includes a telescopic sight (collimator), elevating and traversing mechanism and cross levels.

The propelling charge is attached to the tail-end of the shell and lays in slots between the fins. It consists of several increments of either sheet or granular powder and an ignition cartridge (similar to a shotgun shell) which rests in a perforated recess in the rear end of the fin assembly. The shell is dropped down the muzzle of the mortar tube, fuse end up, and is discharged by the primer hitting a stationary firing pin in the base cap. The flash of the ignition cartridge through the perforation ignites the powder charge. Different ranges for the same shell are attained in action by simply removing successive increments of the propelling charge.

Ammunition for these mortars consists of high-explosive (H.E.) and practice shell. In addition, smoke shells

are made for the 81-mm. size. Both the H.E. and practice shell for the 60-mm. mortar weigh about 3 pounds. Superquick detonating fuses are employed to insure instant detonation on contact while the shell is still above ground. Practice shell are sand-filled, with a small smoke charge for spotting. The H.E. shell has a range of from 75 to 2,000 yards.

For the larger size mortar there are two sizes of H.E. shell; 7 and 12 pounds, loaded and fused, were recently made standard. The shell can be lobbed into trenches or troops as close as 100 yards; maximum ranges are about 3,300 and 2,600 yards, the heavier one having the shorter range.

The 7-pound H.E. mortar shell contains approximately the same explosive charge of T.N.T. as the 75-mm. howitzer shell, and its destructive effect is about the same. Used for fragmentation, it is provided with a superquick fuse. Employed for demolition and fragmentation, the 12-pound projectile has a combination superquick and delay fuse which can be set for either mission by the men operating the mortar. The delay fuse allows penetration prior to bursting. The T.N.T. charge is approximately that of a 105-mm. howitzer shell.

Laying of smoke screens and otherwise hindering enemy observation is the mission of the chemical shell, which weighs about 11½ pounds and is fired from the 81-mm. mortar alone. This is provided with a superquick point-detonating fuse and has a range of 2,500 yards.

An effective system of "prepared fires" has been worked out and mortar units are drilled in this new technique. This includes "area fire" and can be used in the destruction of targets visible to or concealed from the gunners. In the latter case aerial photographs or maps may be used. "Scheduled fires" are executed according to a time schedule or upon a signal from the commander of the supported troops. Fire coverage for individual mortars is in the form of 50- and 100-yard circles. Larger areas are covered by dividing it into multiples of 100-yard circles, in width and depth. In a defensive situation each mortar usually is assigned a primary target area to cover likely avenues of approach close to the front line. Fires are not placed closer to foot troops than 200 yards.

The two great advantages of the mortar, as already pointed out, are terrific fire power and lightness and ease of handling. A third advantage lies in its ease of manufacture. In view of the fact that the machine tool load of the country is one of the worst problems in this war, the advantage is no mean one. Any modern machine shop can do the work required on mortars. Seamless steel tubing (heat-treated) is cut up and the outside finished with a centerless grinder for the mortar tube proper. As no rifling is used, the bore is roughed and then bored to finished size. Base cap threads are cut on one end. The base plate is a stamping to which ribs are welded to obtain structural strength. The yoke is a machined malleable iron casting. The base cap is a forging, drilled and tapped on one end, and the ball end is then finished and bored for the firing pin which screws into it. The gear case is a solid steel forging, machined. Traversing and elevating screws are machined from special corrosion-resisting steel, in the hard condition. The outside of the screw stock is first ground and then the threads are rough-chased and finish-milled.

Heavy mortar can lob as short as 100 yards or blast at objectives more than two miles away

Mortar shell manufacture is also simple, for they also are made from seamless tubing. Hot swedging closes the tail end and a cupping die in a press reduces the front end. The tail fins are simple stampings.

The Ordnance Department has handled the production of these devastating war-babies so ably that the United States Army is already fully equipped with these weapons.

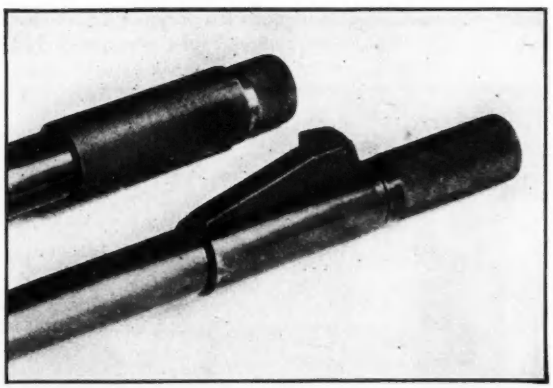
Powell 12-GAUGE Tubes

By F. C. Ness

After a considerable period of correspondence and a number of exchanges with Norman Powell, instrument maker of Bryn Mawr College, we became interested in the smooth-bore muzzle tubes he described in the last issue, and particularly the one rifled for shooting round-ball. When we learned his 16-gauge Ithaca with polished choke tubes of his own make was outshooting run-of-the-mine 12-gauge shotguns, we had to try them, and elected our own M-37 Ithaca 12 gauge for the purpose.

Powell does not believe in threading barrel-muzzles as thin as those of the standard shotgun in any gauge. Instead, he sweats on his threaded adapter after removing the last vestige of choke or bore-constriction. The 12-gauge requires an adapter tube or threaded muzzle collar about 2½ inches long and nearly an inch in diameter. He suggested a full-choke tube for heavy 1¼-ounce duck loads about 3½ inches long and bored .684 inch. For trap loads of No. 7½ chilled he suggested a .692-inch bore in a 3-inch tube, and for light loads of No. 6 chilled, a .700-inch bore 2¾ inches long.

Having a spare barrel for my Model-37 pump gun, I



Powell muzzle adapters and tubes. Upper: Ness 12 gauge; lower: Powell 16

sent it to Powell who reduced the muzzle diameter from .831 to .826 inch and then soldered and shrunk on his threaded adapter. This can now be removed only by heating and driving or pulling it off; practically a permanent fixture. The barrel length was 25.69 inches. The threading is inside the female adapter and outside the male choke tubes which makes it a collar or coupling. Because of the very fine threads one of the muzzle tubes is left in it while cleaning the bore.

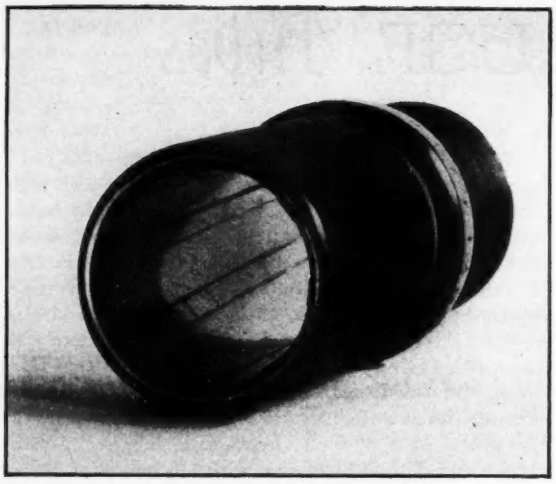
Powell made my 12-gauge tubes of S.A.E. 2315 steel, hardened, ground and polished. The ordinary choke is about two inches long and the full choke, a full three inches. We have noticed these hard polished surfaces will lead from ball and shot like all other chokes, but that the lead streaks are more uniform and more closely spaced. Another difference is that soft-metal tubes tend to tighten when the gun is fired, whereas these hard-metal tubes tend to loosen. Even when we turn them in tightly with rag-insulated pliers they can be started and removed by hand.

We picked favorable conditions for trying shot loads in the Powell choke tubes, a warm spring day of 77° F. At 20 yards some fresh Federal 12-gauge loads put their dense centers into 12-inch, 13-inch and 14-inch circles when the short choke was tried. The smallest pattern was made with 1⅛ ounces of No. 7½ chilled in a trap load having the new folded case-closure without crimp. At 40 yards this averaged 2.40 hits per three-inch square or 188 pellets in a 30-inch circle. The biggest 20-yard average spread of 14 inches was with 1¼ ounces of No. 4 chilled in a Hi-power load of 3¾ drams. At 40 yards this averaged 1.38 hits per three-inch square, which amounts to 71.4% in a 30-inch circle. The 13-inch spread at 20 yards was made with an equivalent Hi-power load of No. 6 chilled.

The long choke tube was then substituted and fired without any gun-cleaning. In this one the same load of No. 4 chilled averaged 10½ inches spread at 20 yards, and 1.56 hits per three-inch square at 40 yards, or 72.6% in a 30-inch circle. The load of No. 6 chilled averaged 13½ inches at 20 yards and 2.13 hits per square at 40 yards. We also tried some Remington K.B. Shur-Shot trap loads of No. 7½ chilled in the new folded-crimp cases. These spread 13 inches at 20 yards and averaged 3.48 hits per three-inch square at 40 yards.

One very noticeable thing about all these 40-yard patterns from the Powell tubes was their uniformity of distribution over the pattern paper and from shot to shot. We tried a certain lot of Western Xpert trap loads (1¼ ounces of No. 7½ Lubaloy) which we use as a criterion because it patterns beautifully in most full-choke guns. The extreme variation was only ten pellets, and the aver-

The two M-37 Ithaca pump guns. Scope on Ness 12 gauge; peep on Powell 16



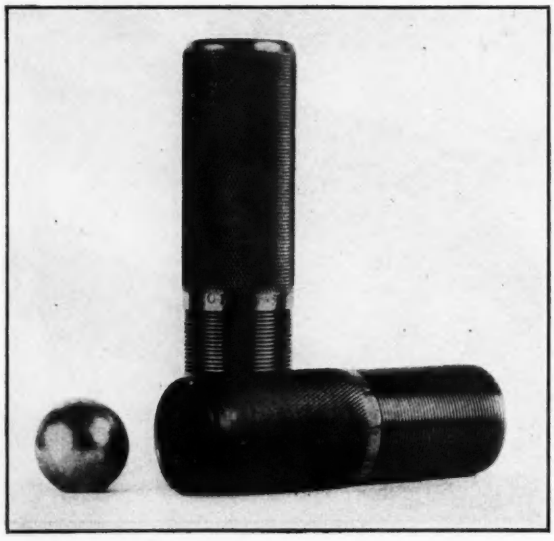
Powell 12 gauge rifled tube. Right-hand twist of one in 30 inches

age was 3.83 hits per three-inch square, or 300 pellets in the standard 30-inch circle.

My M-37 Ithaca is equipped with the 1X Weaver shotgun scope in Weaver's "B"-type mount, making it a good one for testing the relative accuracy of various single-ball and slug loads. This is an unusual gun in that it maintains its 50-yard zero with all similar loads no matter which of its two Ithaca barrels is used and regardless of changes from one to another of the Weaver choke tubes or any of the Powell tubes. With our ball loads we tried the Weaver chokes first, all from bench rest at 50 yards.

To establish a basis of performance with this gun, we fired Peters rifled slugs in the Weaver ½-choke and ¼-choke tubes. The latter tube put its five shots in 7.17 inches at 50 yards. The tighter choke also put five in 7.32 inches, but its total six-shot group measured 10.84 inches, which is bigger than our standard 8-inch average for these slugs in proper shotgun chokes. The bigger or more open chokes nearly always do best.

Powell choke tubes and lead ball. Long threads; hardened polished bores

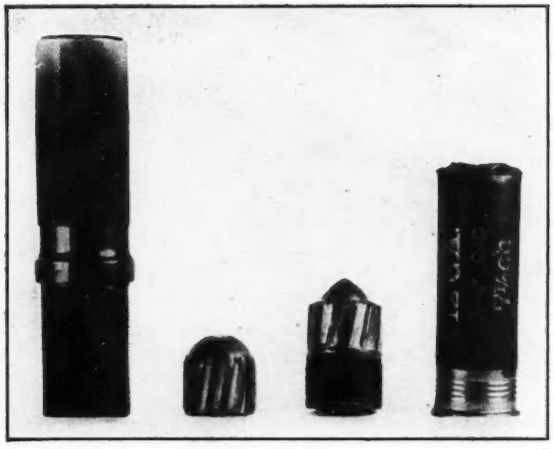


Then we tried a .715-inch lead-ball supplied by Powell as cast from an Ideal mold. We merely substituted these for the shot-charges in a fresh lot of Federal Monark trap loads. The new folded crimp of these 2¾ cases made the job quite simple as the end-folds returned to their normal position over the ball and preserved the original new appearance of these cartridges. The powder load was 3 drams.

The short Powell choke tube made a 6.90-inch group which was checked by firing a second group, into 7.00 inches. In this short Powell tube the Peters rifled slug made a still better group of 4.70 inches. I might add that Powell did not design his smooth-bore tubes for shooting single-ball loads, for which purpose he made a longer rifled tube of .700-inch bore diameter and .718-inch groove diameter, with a pitch of 1-30.

In making this rifled tube for me Powell fitted an adapter to his own 12-gauge, which was a Stevens pump, and tried it with a few of the same .715-inch Ideal lead balls. He loaded these in Remington and Peters loads of 3¾ drams and fired them, mixed, at 50 yards. The seven-shot group measures just 3½ inches which is very good indeed in view of the nondescript shotgun sights with which aim had to be taken. Powell loaded these balls on top of a wad of toilet tissue and turned the crimp back on the ball with the Ideal Pocket Closer. He also used some Ideal lubricant on the ball.

When we tried the Powell rifled tube on my M-37 Ithaca, our own 3-dram handloads, with the same ball and paper-wad method of loading, made a group of 6.22 inches. We had eight W.R.A. Super-Speed rifled slugs, and these



Tube; Foster slug; Brenneke slug; ball load

made a good group of 6.40 inches, with all but one in 3.68 inches. We also had three imported Brenneke rifled slugs, handloaded by ourselves, and these made a group of 4.22 inches. Finally, we tried Peters High Velocity rifled slugs and got a very fine group of 2.65 inches with all but one in 1.73 inches at 50 yards. That was as good as any shotgun accuracy we had gotten to that date. Later, we tried this again without cleaning the leaded tube and got them all in 2.20 inches with all but one in 1.45 inches, which indicated the first group was no fluke.

One thing we noticed in our group shooting at 50 yards was the peculiar whistling noise made by the smooth round balls when fired through the rifled tube. This duplicated

the usual sound made by rifled slugs in all smooth bores. Oddly enough, these rifled slugs made no audible sound when fired in the rifled tube. Those fired with 3¾-dram loads were appreciably faster over the 50-yard course than those loaded in 3-dram cartridges. I have assumed a muzzle velocity of 1220 f.-s. for the latter and 1480 f.-s. for the high-velocity loads.

We were unable to buy factory single-ball loads locally, so we resorted to handloading the .715-inch Ideal round ball supplied by Powell. In the same 3-dram loads before mentioned we now seated the ball on a wad of 4-inch toilet tissue with and without lubricant. In the rifled tube those five loaded without lubricant around the ball grouped into 7.22 inches.

We also tried similar loadings of these balls in 3¾-dram loads with standard crimp. In each case the wad of tissue paper was used as it seemed to be a definite improvement. Those without lubricant made a group of 3.40 inches at 50 yards. This last load was also tried at 100 yards at which range it made a good group of 11.00 inches.

The Weaver scope on my M-37 Ithaca is about 1⅜ inches above the bore, axis to axis. When we fired the Peters High Velocity rifle slugs for a trajectory curve the impacts appeared to be exactly on aim at 12½, 25 and 50 yards. However, when we measured everything carefully we had from .50 to .80-inch gravity drop over 25 yards, 2.50 to 4.75 inches at 50 yards, 6.44 to 9.75 inches at 75 yards and from 11.84 to 16.25 inches over the total range which was 100 yards. Because the adjustable Weaver reticule was not exactly coincidental with the scope axis and because this 1X instrument has considerable parallax at the shorter distances some discrepancy was unavoidable.

Previously we had tried the Peters and Winchester rifled slugs in the Cutts Compensator on an M-28 Savage trap gun which had a Belding & Mull 3X Hunter scope mounted about 1¾ inches above the bore. Here too we had some parallax and an adjustable reticule with which to contend. Our drop figures averaged about ½ inch at 25 yards, 2½ inches at 50 yards and 10½ inches at 100 yards. The ballistics of these 12-gauge slugs in factory loads are given as 1470 f.-s. at the muzzle, 1269 f.-s. at 50 yards and 1120 f.-s. at 100 yards, with drop figures of 2.32 inches at 50 yards and 10.60 inches at 100 yards. The trajectory height for any range is one fourth of the drop.

In checking back on our own experiences and that of others we can arrive at a definite conclusion regarding the accuracy which may be expected of single-ball loads in smooth-bore barrels. Providing the ball or slug fits the choke or muzzle snugly, but not too tightly, and that good sights (peep or scope) are used, round ball will group into 15 inches for ten shots and into 10 inches in 5-shot strings at 50 yards. Handloaded or factory-loaded ball will do about the same under these conditions. Handloaded slugs will do slightly better. With the Winchester rifled slug our 10-shot groups were about 8 inches, just about half the spread of round-ball loads.

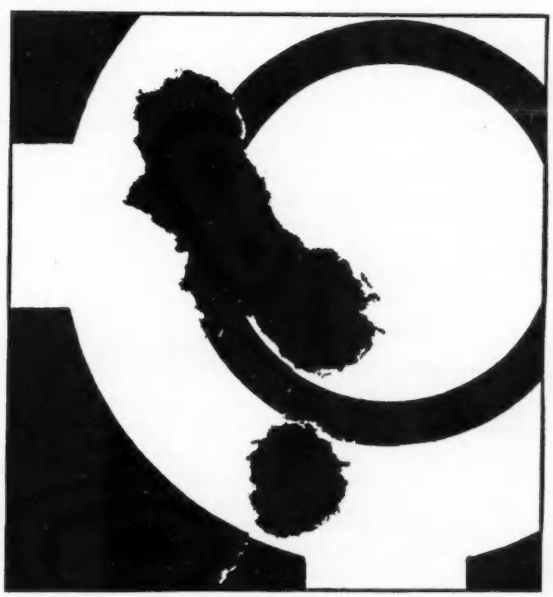
The short smooth-bore Powell tube on my 12 gauge measures .700 inch and this improved our 10-inch 50-yard accuracy-standard fully 30% by averaging 5-shot groups of 7 inches with round ball. It did the same for 12-gauge rifled slugs by shooting into less than a 5 inch spread against our former average of 8 inches.

The Powell rifled tube gave no apparent improvement at 100 yards, but a very considerable one was noted at 50 yards. Properly loaded round-ball and slugs grouped into less than 6½ inches, in strings of three, six and eight shots. With Peters rifled slugs it really "went to town" with five-shot groups of 2.65, 2.20, 2.70 and 3.57 inches.

The performance of the rifled tube with shot loads was somewhat disappointing. Apparently it would be satisfactory for skeet shooting and practical for grouse

(*Continued on page* 37)

50 yard groups fired by Ness. Left: 12 gauge ball; right: rifled slugs



The Model 1917 BARREL on the MAUSER 98 ACTION

By Frederick W. Beckert, Jr.

There are a great many Mauser 8-mm. Model 1898 rifles scattered around the country, of which some of course were brought back from Europe with the first A. E. F. Quite naturally those rifles in usable condition have been employed as big-game rifles, because the 8-mm. cartridge is a good, efficient killer. If the average accuracy obtained from it has been mediocre, it is more the fault of poorly-bored barrels than any fundamental fault in the cartridge itself. Ammunition for a long time now has been obtainable in this country and is no more expensive than other commercial ammunition in similar calibers. Unfortunately, there are many of these 8-mm. rifles which have barrels in very poor or actually unusable condition. The actions, however, are often sound and tight, and would make excellent bolt-action sporters if they could be rebarreled at a reasonable cost, preferably for some standard American cartridge. These actions were made for military use, and have not, in most cases, been carefully adjusted for smooth-working qualities, although those of pre-war manufacture are usually pretty good in this respect. Those of later manufacture are more likely to be rough but if in otherwise good condition should be perfectly safe when properly rebarreled.

The Model 98 action is designed for a cartridge head of the same diameter as that of our .30-'06 cartridge, which is a sort of standard head diameter for rimless cases. This leaves the way open for a great many cartridges, all the way from the .220 Winchester Swift to the .400 Whelen. The magazine may have to be lengthened a trifle to handle some of these. Incidentally, the Mauser, with its square shoulder at the breech of the barrel, should be excellent for use with the .220 Swift with its semi-rimmed case.

Most owners of these Model 98 actions will be more interested in rebarreling them for the .30-'06 cartridge than for any other caliber. While several firms can still make and fit new barrels, the cost of this work is a bar to many who would otherwise have it done. The only other way out is to purchase some stock barrel which is suitable and have it fitted and chambered to suit.

The Service Springfield barrel has been tried for this purpose but it has certain features which are not helpful at all. The Springfield barrel thread is of the square type and its outside diameter less than that of the Mauser thread, which is of the V type. This means that the threaded portion of the Springfield barrel must be cut off and the butt rethreaded for the Mauser action. The length of the Service barrel is thus lessened from 24 inches to about 23 inches. This odd length is no objection from the standpoint of accuracy, however, and is not too short for a good sporting length rifle. The cylindrical portion of the barrel at the breech is practically eliminated. The Service barrel is only roughly turned under its Parkerized finish, and must be finish-turned and polished before it can be blued. The lock pin groove for the old military rear sight base must be turned so it will be on the lower side of the barrel when in place, in order that it will not show. It is not advisable to turn down the outside of the barrel enough to remove this cut. Not much of a shoulder will be left at the forward end of the breech threads, but since there is a shoulder at the rear on the Mauser-type barrel, this is not too serious a fault.

The U. S. Model 1917 rifle barrel is better suited to fitting on the Mauser action than that of the Springfield barrel. Its breech diameter is greater, as is also the threaded end. There is an ample shoulder to fit up against the Mauser action hood. While the 1917 barrel has a square thread of coarser pitch than the Mauser V type thread, examination shows that by judicious threading it is not necessary to cut off the threaded end of the 1917 barrel, and hence a longer and heavier breech contour can be had than is the case when the Springfield 1906 barrel is used. Furthermore, a full 24-inch barrel could be had, or even slightly longer if desired.

It is necessary first to face off the breech end of the barrel squarely and at the correct distance from the breech shoulder. I find it quite practical to dress out the square 1917 threads to fit the Mauser action, and yet achieve a full and continuous V thread. The barrel is next cut

Model 1898 Mauser rifles

Left: Military rifle as issued

Right: After conversion to a sporting rifle

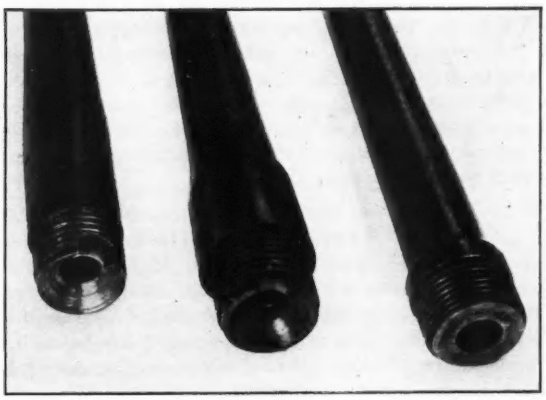
off at the muzzle to an overall length of 24 inches, and the muzzle recrowned. After this the barrel is screwed into the action and correctly rechambered for the .30-'06, and the action lengthened to handle this cartridge. A front sight base is then fitted and the barrel and receiver assembly polished and blued. The outline of the combination is more pleasing to the eye than the Springfield barrel and Mauser action combination.

I have tried out both assemblies on the range. A 48 Lyman rear sight was used, and the front sight was a wide, flat-topped blade. An old German military rifle stock was used because it was the only one on hand at the time. Its barrel groove had to be opened out to receive the Model 1917 barrel. At 100 yards, prone, with the sling strap, groups ran from 1¾ inches to 3 inches; this with several makes of hunting ammunition in 150, 180 and 220-grain bullet weights. This is quite satisfactory in my opinion. The point is that no reason exists why this combination should not be accurate.

It has been stated that the Model 1917 barrel, on account of its slightly larger diameter (usually about .310″), is not so accurate with .308-inch standard bullets. I tried some hand loads with the 7.62-mm. Russian bullet, 148 grains weight, .310-inch diameter, and some using the Western Tool and Copper Works 172-grain flat-base bullet, caliber .303 British, open-point, .311 diameter, and full charges of HiVel powder. There was practically no difference between the accuracy they gave and that obtained with .308 bullets. In fact, one barrel showed a slight preference for the .308 diameter bullets, though it was only slight.

A last and not unimportant argument in favor of the Model 1917 barrel is its low cost. Even now they may be picked up quite reasonably. It was formerly quoted in the D. C. M. price list at $3.93, whereas the lowest-priced Model 1903 barrel, the Service grade, was listed at $7.10. Or course, they are not available now through this office. It should be mentioned, too, that the 1903 barrel requires more effort in refinishing its outer surface than does the 1917. Some Mauser receivers have oversize hoods too large for M-1903 barrels but all right for M-1917 barrels.

Breech ends of three .30-'06 barrels. Left to right: Springfield, Enfield (M-1917) and Mauser



POWELL 12-GAUGE TUBES

(*Continued from page 35*)

or cotton-tail shooting in dense cover where ranges are limited to less than thirty yards. At twenty yards we got patterns which would have been normal at twice the distance, or over the standard 40-yard range.

There is much still to be learned about these Powell tubes. We have three additional smooth-bore tubes (short, long and medium), which slug .714, .686 and .694 inch respectively. All have a straight bore one-half inch long at the muzzle and a standard .729-inch bore diameter at the threaded end. Each has a different length of taper. Powell's ambition is to fit each different load with its own tube.

How well, or poorly, it has worked out in our own shooting may be learned from a summary of our 12-gauge results. Mean percentages in the 30-inch circle at 40 yards as obtained with the different Powell tubes in our M-37 Ithaca are given in the following tables:

Powell Choke	*.687″*	*.691″*	*.694″*	*.700″*
Grand Average	61.24	66.00	56.05	55.75
No. 4 shot	65.15	69.35	58.33	63.30
No. 6 shot	56.27	60.93	55.55	.....
No. 7½ shot	60.70	65.20	54.28	48.19
No. 7½ Lubaloy	68.21	69.60	.....	.....

.718″ Powell Rifled Tube

Range	*40 Yards*	*20 Yards*
No. 7½ shot	21.10%	69.00%
No. 7½ Lubaloy	20.88%	71.00%
No. 6 shot	26.16%	75.00%
No. 4 shot	.....	82.00%

Single Ball Loads at 50 Yards
(Extreme Spread of 5-Shots)

Powell Choke	*.714″*	*.700″*	*Rifled Tube*
Rifled Slugs	6.30	4.62	2.20 to 3.57
" "	....	4.70	2.78 (mean)
Ball H. L.	....	6.90	3.40 to 4.22
" "	....	7.00	1.80 to 2.80

Single Ball Loads at 100 Yards

Powell Choke	*.700 Tube*	*Rifled Tube*
Rifled Slug	8.20 to 21.75	22.58 to 26.10
Ball H. L.	.....	12.60 to 14.00
" "	.....	11.00 to 13.00

The last word from Powell on his own Stevens 12 gauge is fine patterns with mild loads of No. 6c in a shorter rifled tube of .663-inch bore and .673-inch groove diameter. Five patterns at 40 yards averaged 196 hits or 78% by standard count. This one, however, does not handle single-ball loads nearly as well.

Before going to press we managed to test this same 14-gauge rifled tube on our own 12-gauge Ithaca. The shot patterns from it were very much better. With a Federal Hi-Power load of No. 6c it spread only 10½ x 15 inches at 20 yards and averaged 1.89 hits per 3-inch square at 40 yards, or 53.37% in the 30-inch circle. A Western Field trap load gave 3.1 hits and 56.33% for two shots at 40 yards. At 50 yards a Federal Monark trap load filled the pattern paper evenly with No. 7½ shot. These are the first practical patterns we have ever fired from any rifled bore. Peters 12-gauge Rifled Slugs and properly handloaded 14-gauge balls made groups of 4.28 and 4.00 inches at 50 yards from this same rifled tube, which would indicate its all around practical usefulness.

Any Alibis?

THRASHING OUT THE WOES OF THE HANDGUNNER . . .

This month . . . a new gadget—

THIS TARGET HITS BACK

WHEN YOU GET TIRED of punching holes in a poor, innocent, defenseless pistol target anchored twenty-five or fifty yards away, try this. Stand directly under the wire on which this "running man" target travels. Get set, wait for the final word of command as the target gets well started down the wire toward you. Then start shootin'.

You've got to hit the 5-inch black to stop it. WHAM! . . . Miss . . . WHAM . . . WHAM! . . . Gosh, that side wind must be doing it . . . WHAM . . . Lordy, only one more left. You've *got* to stop the thing. The bull is getting larger and larger, but it's also coming faster and faster right at you. Now you know how a big game hunter feels when he's down to his last cartridge, and the charging rhinoceros is almost on top of him . . . WHAM! . . . and the rhinoceros—sorry, I mean the target, grinds to a final stop just six feet from the muzzle of your gun. Whew! That was close!

Of course it needn't be a rhinoceros. Call it a Charging Jap if you like—they've got to be stopped, too. The point is that here is a target which introduces at least the faint element of rapidly advancing danger. Pistol experts can miss it, if they haven't the right kind of nerves. Mediocre shots can hit it, if they have.

There is not a great deal of work involved in making this target. The one in the photo was assembled in little more than a Saturday afternoon. All it needs is a few parts from the scrap pile, a few bolts, a couple of pulleys, a simple wood frame, and a nearby garage where they will flame-cut a circular piece of ¼-inch steel, and weld it to the flat bar upon which it swings. Just remember to set that steel disc at about a 45 degree angle, so it deflects bullets downward.

As the line drawing shows (see page 44), a bullet striking the steel disc will push it back, releasing the "stopper" or brake, so that the spring drives it up against the wire, and it brakes the contraption to a stop. The thing has to be "cocked" at each use, of course, and the angle of the cocking notch dictates the weight of the pull, just as in a gun. A .22 bullet will set it off, if you get the angle right.

About 200 feet of good stout fish-line, running over a small pulley, brings the target back to its starting position. This is the same arrangement that most "running deer" targets use.

The angle at which you string the wire naturally dictates the speed at which the target will travel. Leaving a little slack in the wire will prevent too much speed at the end of the run—because you don't want to hurt the shooter if he fails to stop the target with five shots. You just want to get the laugh on him. This in itself provides a pretty strong incentive to improvement. If it seems preferable the shooter can take a position just to one side of the wire, allowing the target to pass him if he fails to stop it. A "cease fire" whistle may be used to insure safety.

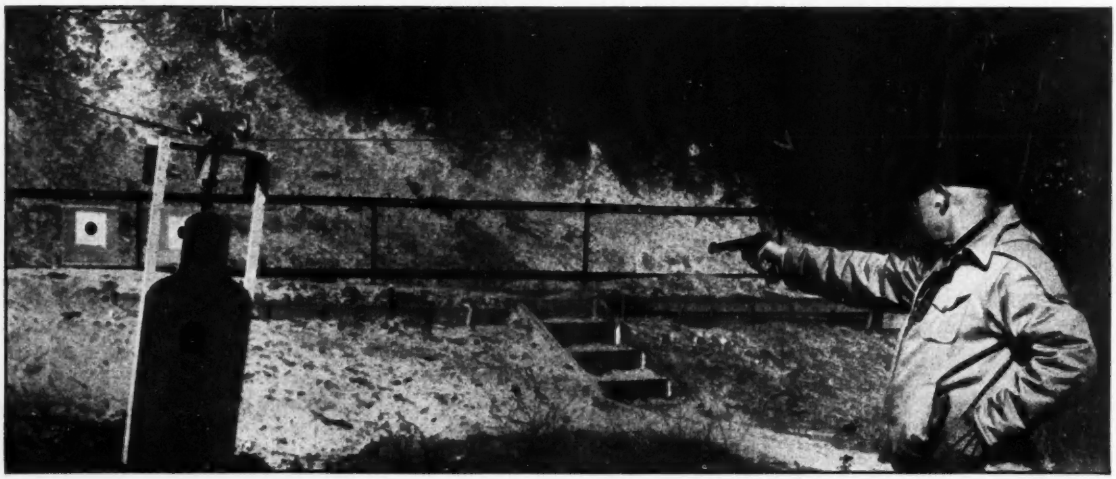
Where competitive scoring is desired, the length of time between the word "Go" and the stopping of the target, taken with a stop-watch, will provide a fair basis. Or a few pegs may be stuck in the earth along the line of target travel, marked "20", "40" etc. to "100", the latter being of course the farthest away.

It goes without saying that a man who can stop this target consistently, is pretty safe behind his handgun against a rapidly advancing enemy.

See page 44

—WILLIAM E. PETERSON.

Now you know how a big game hunter feels. The bull is getting larger and larger, but it's also coming faster and faster right at you. You've just got to stop the thing



The Old Coach

MARKSMEN, NOT FLINCHERS

THIS MONTH I HAVE A STORY to tell, which I think will be helpful to you if you are engaged, as most of us should be, in that most commendable effort to make American Riflemen.

When I was a young boy my father gave me my first rifle at the tender age of twelve, and enthused by the tales of Natty Bumppo, Daniel Boone, and Kit Carson, I wanted to be a dead shot. But there was no man, boy, or book to tell me how to go about it. Finally in 1890 I did find a book which contained a few notes on rifle shooting, but really the only helpful sentence in it was, "The sportsman should be careful how he pulls the trigger so he will not disturb his aim before the bullet leaves the bore." It also contained instructions to take a coarse sight if you wanted to hit higher, and vice-versa, and to keep the bore clean, but it did not tell how to do so. All the rest I had to find out for myself by trial and error.

As I look back on it that hint about the trigger pull, coming almost at the start of my shooting, was extremely fortunate because it kept me from developing that hard to break habit of flinching.

Then in 1896 I joined the National Guard, and there I was taught three more valuable things—how to clean the rifle, how to use the gunsling as an aid to steady holding prone, and the necessity for taking up the slack on the trigger of the old .45 Springfield before starting to aim. Also for the first time I saw pictures illustrating the best firing positions.

After my return from the Spanish-American War an old rifleman of the Sea Girt and Creedmore school took me in hand and taught me a whole lot during the summer of 1899, and shortly after that I entered the Regular Army. There I found almost no information as to rifle shooting. The manuals of that time were merely regulations, very academic, and not at all practical. The old soldiers who shot the old .45-70 so well during Indian days had been almost all eliminated by the late war. With what I had learned from my old coach I easily led my regiment in shooting, and a year or two later I took two sergeants from my company successfully through Department and Army competitions, and the three of us shot on the first Army Infantry Team which competed in the first National Match at Sea Girt. About this time I had also gotten ahold of a Pope Micrometer Sight Adjuster, and had learned that most valuable art of minute of angle sight adjustment.

Of course every effort was made to have the competitors who attended the National Matches go back to their military organizations and homes and teach others to shoot, but the results were not quite as good as had been hoped. Statistics kept by the Federal Government and the States showed that only about one-third of those who took the courses of instruction qualified as marksmen or better. The other two-thirds were hopeless, and we now know that the reason for their failure was that they developed the pernicious habit of flinching.

About 1916 Colonel A. J. (Sandy) MacNab developed a new method of teaching beginners to squeeze the trigger, the object being to prevent flinching. "Squeeze the pressure on gradually, increasing it only when the aim is correct. The rifle must be discharged *unexpectedly* while the sights are aligned and the pressure is being increased." Of course, to apply pressure while the sights were correctly aligned the aim had to be steady for fairly long periods, and so this squeeze was first to be taught while the beginner was shooting from a rest, and he was not permitted to shoot prone until he had also been taught steady prone holding with the sling.

At first this system did not appeal to the older shooters at all. They had been taught, and they thought they applied the system of squeezing the trigger off promptly but carefully when the aim was correct—nothing about "unexpected discharge." But soon they had to acknowledge that there was something in it because it was making ninety percent marksmen or better instead of sixty-six percent flinchers. Then the thinkers began to analyze this new system. They found that apparently the original wording of instructions on the squeeze was confusing. That when it was applied in practice what actually happened was that the shooter soon learned just about how much pressure he dared apply to the trigger without discharging the rifle. Then he put that amount on before he began his critical aim, and when the aim was just right he slowly applied the last increment of pressure to cause the rifle to be discharged, but applying it so gradually that he did not know within perhaps a second, perhaps half a second, of when the rifle was going off. With his training in the prone position, and his use of the sling he could hold the sights correctly aligned for a period of perhaps three or four seconds, during which he easily put on this last squeeze. The new system had doubled our accuracy of fire, but more important still it enabled us coaches to make practically every pupil a marksman, and do it in half the time and with half the expenditure of ammunition as formerly. The art of coaching had at last been developed. This is the system that has been used in the Small Arms Firing School at Camp Perry, it is the system advocated by Major Andrews in that excellent little booklet of his, "From Tyro to Master," and it is the system your Old Coach has been teaching and urging for many a year.

I have spoken of the finer accuracy that has come from training under the new system. But really in war we do not need such fine accuracy. What we want are soldiers who can hit the enemy almost every shot up to 200 yards at least, even when the target is only a man's head.

But the real point is that unless a soldier feels that with his rifle he is decidedly superior to his enemy, unless he feels that he can command his enemy when he sees him, can put him out of commission first, he will not have that confidence and coolness to advance in battle under any odds whatever, nor will he make a successful scout—he will not be a first-class fighting man.

Let us make marksmen, not flinchers!

First in the Hearts and la
of America's Tar et

Winchester Model 52
Heavy Barrel
Small Bore Target Rifle

For Victory
BUY U. S. WAR BONDS AND STAMPS
KEEP 'EM FLYING!

WINCHESTER REPEATING ARMS COMPANY
Division of Western Cartridge Co.
NEW HAVEN, CONN., U. S. A.

ON the sunny fie Perry
the battle fro name
is a great builder of . For
years the world fame 52 h
the skill of thousand e fine
country has produce

And when this m Winc
facture is transferred ts tra
sportsmen to the ar are ne
more vital victories its the
dence in their pred nd st
qualities that have adily
erations of "knowing Intri
men have learned to upon
ure of success.

W

d lands
aret Riflemen

ny fie Perry or the grim reaches of
e fro name Winchester on a rifle
er of e. For more than a score of
fame 52 has backed on the range
usand e finest target shooters this
oduce

his m Winchester precision manu-
ferred ts traditional equipment for
e arm are needed to help win still
ories is the same heartening confi-
prec nd sturdy dependability —
ave b dily built up through gen-
owing Intrinsic qualities that rifle-
ed to upon for the utmost meas-

Though new Model 52s may not be so readily obtainable today as in the years of peace behind us, many 52s have served and are now serving to make possible that precision training which competitive rifle shooting so adequately provides.

Precision training requires equipment that is precision built. Winchester Model 52 has long proved its supreme efficiency for such training. It is the product of precision minded engineers working with precision tools. Built to give American riflemen the utmost in target shooting efficiency, it stands as a conclusive answer to this exacting requirement.

Winchester Model 52 Rifle continues to hold its place of leadership in the hearts and hands of America's target riflemen.

WINCHESTER

TRADE MARK

POWDER SMOKE: READERS COMMENTS THE NEWS DESK

RE-LOADS . . .

SERGEANT BILL WHITE

Editor, American Rifleman:

My brother, Sgt. William W. White ("Peepsight Whitie" to his many friends of the NRA) has been reported missing since the fall of Bataan.

This boy made a good account of himself, I know, because he had won many medals at Camp Perry with the Ninth Corps Area teams. The last match he attended in the States, I believe, was in 1935. He has been a Life Member of the NRA since about 1929 or 1930.

He was on the very ground in the Philippine Islands his father fought for in 1898 and true to typical White fashion, fought for the only things worth while—Liberty, Freedom and Justice.

I would like to hear from any of the officers or men who were with Bill those last days in that Living Hell created by the Japs. Maybe some of them will be able to tell me just what happened to him. Surely one of all those men who got away knew my brother as he was Supply Sergeant, Co. L, 31st Infantry. The last letter received from him was written on November 12, 1941, so you can see I am very much concerned about him. We were so close. It was he who had me join your wonderful organization and I can say I read your magazine from cover to cover and then before it gets old I take it out to the boys at the air field. I believe they really watch for those books to come.

Keep up the good work, fellows. We need all our soldiers to have NRA instruction in firearms. It wouldn't hurt for the women to do some studying on these courses, too. We may be needed—*Mrs. Grace E. Brady, Stockton, California.*

SHOOT ALL STAGES

Editor, American Rifleman:

In the May issue (p. 34) James H. Chapman advocates more slow fire shooting. My respects to that good slow fire shot and to his civilian record of 193 with the .22 at 50 yards. My respects also to Harry Reeves for his national record of 198 over the same course, and he shoots all stages and calibers and is good at all of them.

Mr. Chapman says he drives 50 to 150 miles to attend a tournament and there are only two or three slow fire matches. So, he says, let's go back to the good old days when most all matches were slow fire. He also complains that the first match, slow fire, starts at 8 a. m. before which you have to drive to the place of the shoot.

Well, I say that after travelling that far in the good old days two or three matches were plenty before starting back home. Now, if we waited until noon to start our matches we'd have a deuce of a time getting in ten or so matches. I may add that if I have to get up and shoot at 8 a. m. it's a sure bet that the man next to me had to do the same thing. That's fair competition. Maybe Mr. Chapman doesn't like to get up early.

I have no objection to a slow fire shot, and what Mr. Chapman says about a rapid fire shooter being all out of whack when he tries for a good slow fire score is all too true. But, more practice will help.

I say shoot all stages and calibers and then look at the aggregate scores to see where you stand in regard to the others. The NRA classifications and qualifications clearly indicate the Association recommends all stages and calibers. Mr. Chapman is listed as a Master so he must shoot them all also.—*Ernest A. Nourie, Fitchburg, Mass.*

THE REASON FOR ROPE

Editor, American Rifleman:

In the June issue (p. 39) Mr. St.-Gaudens drew attention to the fact that the Vickers Machine Gun appearing in a recent article on British arms is equipt with a condensing tube made of rope.

There is nothing unusual about this and it does not signify any inaccuracy in that well-written treatise. For years it has been a common practice to make use of a rope condensing tube during practice drills on the Vickers. The regular service tube is covered with closely woven metal fibers which have a tendency to tear the hands with numerous small cuts when they are handled. Consequently during service firing, gloves are often worn to protect the hands while at the same time a measure of protection is afforded during handling of hot barrel casings.

I have used the rope-type tube many times during practice drills. Incidentally, use of the rope prolongs the life of the service tubes by cutting down on unnecessary wear and tear.—*G. Arnold Whitehead, (Lieut.) Canadian Army, Edmonton, Alberta, Canada.*

RAPID CIRCULATION

Editor, American Rifleman:

Please send one copy each of the January and February issues of your magazine. I have all the copies since I joined the NRA in 1933 and need these to complete my files.

I received the January and February copies but they were so interesting they were borrowed many times (the last I heard some Army major had them). I think they will do more good if I just forget about them and have you send replacements.

I belong to the Utah State Guard and when I read the article on the Winter Sighting Bar it seemed just the dope I needed as I am teaching the other members to be riflemen.

I built a sighting bar and set it up in the supply room at the armory. Most of the men in Company B here in Ogden have had little if any rifle training but practically all can now make very good dot groups with the Winter Bar and they get a big kick out of practicing before drill. They take this practice seriously and I am confident they all will qualify when we get on the range later on.

I told the first sergeant about the articles and he wanted to borrow the magazines and that is how the fellows started to read them. I may get them back but if I do they probably will be worn out anyway.—*Corporal C. E. Erickson, Ogden, Utah.*

THANKS

Editor, American Rifleman:

I wish to thank the Association and Mr. F. C. Ness for help given me in the development of my rifled tube for shot guns. Mr. Ness has done some real hard work in making a number of test groups and collecting some very interesting data.

It is my wish that this device shall be known as the Powell-Ness Rifled Tube in appreciation of the help your Mr. Ness has given me. Much credit is also due Bryn Mawr College and faculty for allowing me to use the college instrument shop and tools and for other help. *Norman Powell, Bryn Mawr College, Bryn Mawr, Pa.*

TOPPERWEIN'S STUNT

Editor, American Rifleman:

The rapid fire pistol experts have been well written up but I saw Ad Topperwein do one stunt that beat anything I ever saw. So far I have never noticed anything in print on this particular exhibition. It was at the N. C. R. Gun Club at Dayton, Ohio, about 1905 or 1906 as near as I remember.

Topperwein took a single action S & W .44 Russian revolver and held it cocked in his right hand. With his left he tossed a block about two inches square into the air about 20 or 30 feet high. He then hit the block with these big .44 slugs *twice*. And he had to cock the revolver for the second shot.

Sometimes the first bullet would drive the block up, down or way out to either side as if it was hit by a ball bat—and it would go a-humming. If anyone thinks that functioning an S & W revolver and hitting a target as erratic in its movements as this is not about the limit of rapid fire proficiency, let them try it.

I have seen Ad Topperwein shoot since that time in public demonstrations but this was the only time I ever saw him do this stunt. —*Earl E. Hole, Dearborn, Michigan.*

PRAISE FOR DERRICK

Editor, American Rifleman:

I was indeed stirred by the editorial of C. J. Derrick (June, p. 4) and I am sure that thousands of trained riflemen who feel their ability has been passed up will feel the same as I in commending your insertion of Mr. Derrick's sentiments.

I have finally received permission from the local board of education for a pre-draft training program under the Director of the Nassau County Drill Corps. We intend to train men who will, themselves, go out into the 56 districts of the county and train the pre-draft men in soldiery. My part entails the training of 62 men. I am giving rifle theory and more theory because of equipment shortages. But I find that a man will be a better shot with two hours of theory and a half hour's shooting with 50 rounds than with 5,000 rounds and little theory. That from 15 years of experience.

I'm sure Mr. Derrick will be happy to know that the riflemen of Nassau County are not missing the well-known bus.—*Joseph Cascone, Brooklyn, N. Y.*

NEW BOOKS:

"RUSSIANS DON'T SURRENDER"

By Alexander Poliakov

There are as yet few books of personal experience coming out of this war from the actual fighting men. To date, war correspondents have been about the only ones to take time out and set down for us the personal reactions to dive-bombings, the rapidly moving spearheads of armored columns, the terrible suddenness of blitz warfare. Robert St. John's "Land of Silent People" is a splendid example. But now, in "Russians Don't Surrender" we have another correspondent's story, only a veteran reporter-fighter's story. Alexander Poliakov, twice decorated and wounded in the present war, is assigned as a special war correspondent to a front line unit immediately upon the outbreak of war. In reporting his assignment to the commander in charge he is merely told, "Very well, then, fight with us."

Wounded in one of the first skirmishes with the onrushing Nazi mechanized might, he stays on with his unit, now completely encircled, rather than to be left in some village which was sure to be taken by the Germans. His notes on the action of this unit, forced to become guerrilla fighters, gives us a simple yet most graphic account of resourcefulness and courage, of actual guerrilla tactics, of fighting under the most adverse circumstances, of complete detachment from the retreating main Russian bodies, yet carrying on somehow for weeks until they again establish contact with the Russian front.

We could easily have done without the foreword by even so distinguished a writer as Pierre Van Paasen. In fact, it gets the book off to a bad start in this reviewer's opinion. The "gilding of the lily" serves no useful purpose in the simple, straightforward account of writer-soldier Poliakov. The Russian soldier's sincerity and determination to fight for a system or for an ideal speaks for itself, and needs no eulogizing of those things in the foreword. When this is attached, it accentuates the propaganda factor, which, nevertheless, we are perfectly willing to accept in any such accounts in order to get to the personal stories of front line fighting.

The illustrations are especially good. The book contains 58 remarkable action photographs, as good as we've seen anywhere. Another credit to Sovfoto.—W. F. S.

"Russians Don't Surrender," by Alexander Poliakov. E. P. Dutton & Co., Inc., New York. 191 pages, illustrated, $2.50.

"THE TOOLS OF WAR"

By James R. Newman

Obviously written for the average American civilian whose military background has been picked up piecemeal from newspaper and magazine accounts of military action, this surprisingly readable book will certainly provide a clearer understanding of the workings of modern land, sea and air forces. "The Tools of War" covers all phases of warfare simply and without the usual technical complexities; it dips generously into history to trace the trend of military thought from the Battle of David and Goliath to the sinking of the Bismarck and the stalling of the German push into Russia last year.

Mr. Newman classes "everything" as a tool of war—and proves it. He delves as deeply into theory and practice as into the actual mechanics of death and destruction. Displaying sympathy for the sciences which have created these tools and a caustic sarcasm toward the military minds which have put them to military use, the author's effort is a refreshing change from the typical text on this subject.

Each phase of warfare is cleverly cataloged into a separate chapter which combines historical background, the specific purposes of the required tools and their respective counter agents, and an unbiased, thorough discussion of their value.

The simplicity of Mr Newman's explanations, which occasionally approach a dry wit, is unusual for a man whose previous literary effort was "Mathematics and the Imagination". He explains the purpose of rifling, for instance, as preventing "the projectile from tumbling over end on end in its flight like a drop-kicked football" and in describing the wheel lock, explains that the spring "had to be wound up, like a toy duck."

Splendidly illustrated with photographs, charts, diagrams and cross-section drawings, this book will clarify the war news for the general reader and, at the same time, serve as a reference on the entire subject of war, past and present.—R. J. S.

"The Tools of War" by James R. Newman. Doubleday, Doran & Company, Inc., Garden City, New York. 398 pages, 145 illustrations, price $5.00.

"HOW THE JAP ARMY FIGHTS"

By

Lieutenant Colonel Paul W. Thompson
Lieutenant Colonel Harold Doud
Lieutenant John Scofield

and

The Editorial Staff, Infantry Journal

Again the far-sighted management of the Infantry Journal and Penguin Books, Inc., join in the publication of a twenty-five cent book, for which we predict a popular reception, perhaps comparable to their last little masterpiece, "Guerrilla Warfare."

Although much of the material has appeared in Infantry Journal, the mere fact that as much information on the Jap Army as is available is now brought together in such concise form, makes the book a "must" on your reading list. For the citizen or the soldier alike, all that can possibly be learned about our wily foe is desired and in fact necessary. We recommend this work as a means to such an understanding. You can be sure the facts have been carefully checked by the keen military analysts of the Infantry Journal and that the writers have presented those facts in an interesting manner. In addition, Colonel Thompson's contributions on the Jap Army in Action, "Campaigns in the China incident" and the "Fight for Malaya" give us one of the few published military views of the recent campaigns from within the service.—W. F. S.

"How the Jap Army Fights." Published jointly by Penguin Books, Inc., 300 Fourth Ave., New York, and The Infantry Journal, Inc., Washington, D. C. 156 pages, 15 illustrations, twenty-five cents. Obtainable through N. R. A. Book Department.

TIMED FIRE
With Bill Shadel

About The Rifleman: Fort Totten, N. Y.—"The boys all like it and one sergeant in particular uses it as a text book." Which reminds us of the notice we carried in our February issue, probably forgotten by now. To repeat, your copy of The Rifleman will bring pleasure to the boys in camp. If you don't know any gun-loving trainee personally, address the magazine to the camp chaplain. Or we'll work out a regular mailing to some camp or soldier for you.

Ordnance School—"How can we get the pictures used to illustrate the stories on British, Japanese, Russian arms? We would like to use them here in our lectures. The stories were excellent, can you give us more?" One of these stories, written by staff member Scofield and reprinted in the Infantry Journal is now an important chapter in the new Penquin book, "How the Jap Army Fights." You'll want to read it.

At Headquarters: **Many of our friends are asking about NRA activities now that many of the larger tournaments are cancelled for the duration. We're proud to say that the NRA is becoming a more definite part of the defense picture every day. There is more interest in shooting subjects than ever, every department is busier, memberships are showing an increase and official Washington is giving recognition through many channels. Our "Minute Man" plan has already been gratefully acknowledged and put under study by more than thirty state governors. Hundreds of clubs are carrying out small arms training courses; ammunition for such training has been approved by WPB; our members are being called upon for instructor's roles within the services. Although shorthanded like other organizations, we're proud to have one fourth of our male staff in uniform through enlistments or commissions, with the percentage going up to better than one third as soon as some of the boys can clear up some minor physical deficiencies.**

At the camps: George Parker, Jr., western hunter and Camp Perry veteran stationed at Camp Barkeley, Texas, writes: "the company fired over the 'C' course with the M-1 rifle and qualified 98.5%. There was very little preliminary and most of the men had never fired over a prescribed course or on a rifle range. I am of the opinion that this is a record. I doubt very much if any other company in the Army has been able to qualify such a high percentage of men." We're curious, too, George, and maybe we'll start something by asking. Of course, just promoted to Staff Sergeant and placed in charge of rifle instruction for the company, George may be slightly biased.

Disarmed Europe: Prof. Jackson of Angola, Ind., suggests "we drop a large number of small revolvers and cartridges enclosed in waterproof bags by small parachutes all over the fields of France, Norway, Greece, Yugoslavia, etc. This will give the people a chance to shoot a few Germans before all of the French are shot as hostages." Or the Czechs who have made good use of two guns and a bomb for Hangman Heydrich.

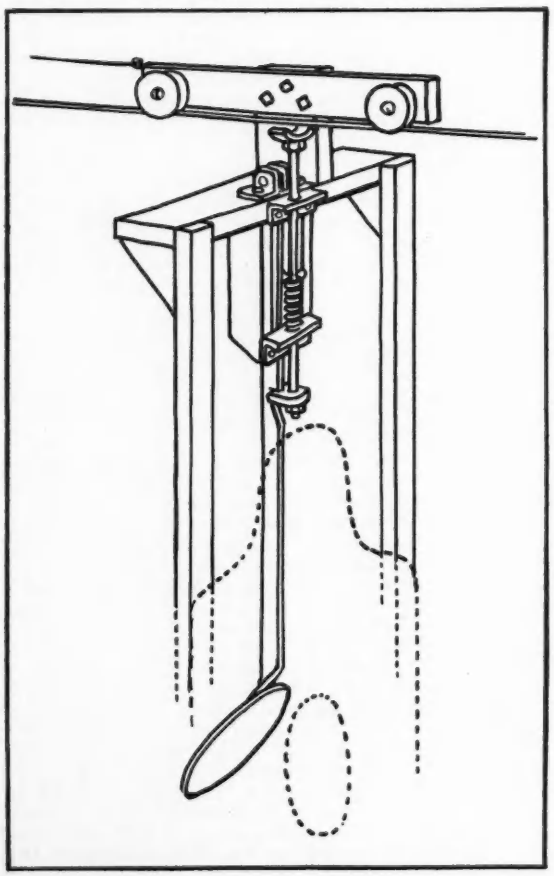
TOURNAMENT REVIEWS

Northern California Small Bore: Oregon marksmen gathered with native Californians at Yreka May 10 for this annual Class C event and also gathered a fair share of the prizes. G. W. Jones of Klamath Falls, Ore., took the opening 50 meter iron match with a 395 in bad weather. C. F. Nash, Edgewood, ran out the Dewar iron with 397; L. E. Brentlinger, Eugene, Ore., had 395 to win the 100 yard any, and local shooter O. A. Deter's 400 possible, only one of the day, was good in the 50 yard any. Brentlinger's 1582 Grand Aggregate score was easily good for top prize while Yreka's Paul Dodge headed Masters with 1570; G. V. Hendricks topped Experts with 1575; Jerry Jones of Klamath Falls led Sharpshooters with 1561 and Joe Correia's 1544 paced the Marksmen.

"Little World's Championship." This annual registered gallery pistol match at Madison, Wis., drew a record entry of 78 at the University armory April 19. Don Thimmesch, West Liberty, Iowa, Master dominated, finishing high in every match. He won the 30-shot Slow Fire with 270 and 20-shot Timed Fire with 193. He was third behind Robert McQueen, Ridgeway, Iowa, and Capt. J. J. Peot, U. of Wisconsin R. O. T. C. pistol coach, in the Rapid Fire, and was outranked by Ralph Wild, Cedar Falls, Iowa, in the Three Stage. His winning aggregate score was a record 932 x 1000 points. Class leaders were: A. T. Mickle, Madison, and Hugo Netik, Watertown, Experts; Cecil Jones, Waukesha, and Stanley Iverson, Chicago, Sharpshooters; George Dawe, Madison, Marksmen.

Tennessee State Small Bore: Knoxville's second registered small bore match drew 55 entries May 10 to Camp Sevier Range and all had to prove their skill against heavy mirage and a fish-tail breeze. Ted Folger, Cincinnati Expert, started things by edging internationalist Carl Jackson of Atlanta with 399-18x in the 50 yard iron. Another Expert, host-towner Ed Hinsdale, grabbed the 100 yard iron with 394-18x before Guy Isenberg of Kingsport won for the Master class with 394-17x in the 100 yard any sight. John Perkins, Anniston, Ala., became the third Expert to win when he tallied 400-32x in the 50 yard any. But consistency paid off as Charlotte, N. C., Master John Dwelle won the aggregate with 1580 although he did not win a single event. Perkins' 1578 and Jackson's 1577 were next.

Trenton Spring Pistol: Pat Coughlin of Paterson, N. J., an unclassified, untried shooter firing in his first registered tournament, out-shot a field of 93 including many eastern veterans on May 24. Creating the sensation of the day, the unheralded Coughlin won the first two matches, .22 slow and timed fire with 186 and 193, and finished second to Jim Chapman's 195 in the rapid. Chapman also took the .22 short course event with Coughlin third and the center fire slow fire with Coughlin the high Expert. George Davis and Merton Golden won the other matches.



Some scrap metal and a wood frame are all you need for constructing a "charging man" pistol target on your range. This working plan is fully described on p. 38 by William E. Peterson

Buddy League Pistol: Keen competition marked the third of these matches conducted by the Seattle Police Revolver Club on the Fort Lawton range May 25. U. S. Coast Guardsman M. J. Archambeau and Seattle policeman Harvey O'Brien contested for top honors with O'Brien leading off with wins in the first two matches with the .22's. Archambeau came back to take two of the next three events from his foe to gain the aggregate title by twelve points. Sgt. Walter F. Day of the Seattle Police led the Experts; Traffic Investigator H. E. Walmsley paced Sharpshooters and civilian J. E. Williams topped the Marksmen.

Iowa Restricted Small Bore: Carl M. Linfor's 1579 aggregate topped a record field of 69 competitors May 24 at Des Moines' Camp Dodge range. The match was restricted to the Sharpshooter or lower classifications. Top competition to Linfor was supplied by Julian Johnston of Mount Vernon who split the four events with the Des Moines shooter and lost the aggregate by only two points. Terrance Holm, with two wins, and Walter Leniton and William Myers with one each, led the juniors; Phillip Bryson led Marksmen in two events to edge R. W. Safley and Bob Steinert for top honors in that classification, while Myrtle Johnston, with three wins, and Jean Sones with one, led the ladies. The tourney turn-out was not only the largest for any restricted match in that state but possibly the largest for any small bore match there. Tourney sponsors were particularly pleased with the large attendance of women and juniors.

New York Pistol: Seventy-one pistolmen from six states competed in this May 17 shoot at Albany. The New York State All-Around Championship became a thriller and was finally decided by one point as Ray Mosteller of Binghamton won with a 1691 score. John Cash of Washington, D. C., was runner up while Ralph Adriance, last year's champ, was third. Mosteller also won the State center fire title with 843 and Cash took the .22 crown with 858. Fanny Palmer, Frank Lesicki, Frank Bates and Erv Meddaugh won individual .22 matches, and Earl Reynolds took the center fire slow fire before Mosteller got hot and ran out the last three events.

Louisiana Small Bore: The third annual Louisiana State Rifle and Pistol Association Class B registered tournament was held at Baton Rouge on May 16 and 17 with a surprising attendance. R. S. Dixon of Clearwater, Florida, who travelled some 800 miles, made the long trip well worth while by scoring practically a clean sweep of the trophies. He took seven of the eleven to be had. Mrs. Marie Robertson of Houston, Texas, grabbed herself a trophy and ten Master medals and, with partner R. T. Anselin of Houston (who won one trophy) scored in the team match and took another trophy. Anselin, in addition, won six Expert medals. Louisiana was not entirely left out of its own match, however. S. E. Pipes, the Shreveport star, won the Grand State Aggregate and thus keeps the trophy he won last year while Curtis Natal and F. J. Villars, Jr., both of New Orleans, won Expert medals. Sam Fuller, another host town competitor, proved hot in the Marksman classification and J. E. Zufall of Monroe proved his ability by taking down honors in the Sharpshooter class.

1942 GALLERY CHAMPIONS

BELGRADE, WASHINGTON TOP BIG FIELD

The Belgrade (Montana) Rifle Club and the Washington (D. C.) Pistol Club have taken down top honors in the largest NRA Gallery League series in history—for the second straight year.

They proved their right to keep the National Championship trophies by scoring over some 597 teams which comprised 75 leagues all over the nation. An estimated 8,000 rifle and pistol shooters—2,000 more than participated a year ago—competed throughout the winter-long series for the right to enter the state and national finals held in May.

The Belgrade foursome, though it lost seven points from its winning score in 1941, still managed to triumph by a margin of 21 this year. It totalled 1545 of a possible 1600 while the second place Maplewood Rifle Club managed a 1524 score. The Elmira Rifle and Pistol Club, winners of the New York State finals, was third with 1522 points.

Leading the way individually for Belgrade were Oswald Bennett and Hugh Biggs who turned in four position totals of 389 x 400. Leonard Lynch contributed 385 while Clare Long hardly could be classed as a drawback with 382. Albert Wedgbury's 387 was top score for Maplewood, while a powerful 391 by Orlo H. Coots salvaged third place for Elmira's squad.

The Washington winners in the pistol division scored their victory and even improved on last year's score even though the team's ranking shooter, Capt. Walter R. Walsh, U. S. M. C., was off form in the final. In 1941 Walter turned in a fine 292 effort to lead his team to an 1103 x 1200 score. This year, though the team total was 1120, Walsh's 278 was fourteen points off last year's pace. Making up that difference partly, Lieut. Phil Roettinger, transplanted Wyoming, Ohio, star who is now stationed at the Quantico, Va., Marine Base, accounted for a 288 individual total. Tom Berdeen turned in 281 and Dave Lacking had 273.

Second place with an even 1100 went to the Piscataqua Rifle and Revolver Club led by H. W. Brooks' 281 while George Paine's top 284 individual lifted the St. Paul Rifle and Pistol Shooters Club into third with 1099.

The 1942 gallery league series, which showed an increase of 70 team entries and 10 leagues, was particularly noteworthy because of the decrease in the number of postal league entries. The more interesting shoulder-to-shoulder basis of league competition heavily outweighed the postal.

The match finals, which could not be held shoulder-to-shoulder as originally planned because of the war, were supervised by an NRA official referee and each was fired under identical conditions.

Trophies consisted of a plaque for each league champion and a brassard to every man on the winning teams who made the team at least once during the season.

In both the rifle and pistol series, scores fired by individuals this year counted for NRA classification. Pistol scores were recorded for that classification book which takes in both indoor and outdoor competition. The rifle results were incorporated in the new Gallery Rifle Classification book.

RIFLE FINALS

Winner National Trophy & Silver Medals

BELGRADE RIFLE CLUB

Clare Long	382
Oswald Bennett	389
Hugh Biggs	389
Leonard Lynch	385
	1545

2nd Place—Bronze Medals

MAPLEWOOD RIFLE CLUB

Clarence Hamm	374
G. W. T. Combs, Jr.	381
Albert Wedgbury	387
David Hogue	382
	1524

3rd Place—Bronze Medals

*ELMIRA RIFLE & PISTOL CLUB

Alton F. Osborne	379
Orlo H. Coots	391
Alton L. Osborne	378
Charles A. Helsing	374
	1522

4.	*National Cash Register Rifle Club	1520
5.	Northwestern Rifle Club	1518
6.	Shiawassee Gun Club	1517
7.	Gresham Rifle Club	1517
8.	Austin Rifle Club	1514
9.	Des Moines Rifle & Revolver Club	1509
10.	Metropolitan Rod & Gun Club	1507
11.	*Rockford Rifle Club	1505
12.	Canton McKinley Rifle Club	1503
13.	*Walnut Creek Rifle Club	1503
14.	Eaton Rifle Club	1502
15.	New Castle Rifle Club	1502
16.	Lena American Legion Rifle Club	1501
17.	*Shelbyville Rifle & Pistol Club	1499
18.	Zanesville Rifle Club	1496
19.	Tacoma Rifle & Revolver Club	1496
20.	Coxsackie Rod & Rifle Club, Inc.	1495
21.	Schenectady Gen. Elec. Athletic Assn.	1494
22.	A. & W. Rifle Club	1494
23.	Bishop Hill Rifle & Pistol Club	1492
24.	Altoona Rifle & Pistol Club	1492
25.	Fort Wayne Rifle & Revolver Club	1489
26.	Canandaigua Rifle & Revolver Club	1488
27.	La Brea Rifle Club	1487
28.	Miami Rifle Club	1482
29.	Lockport Rifle & Pistol Club	1478
30.	Mayville Rifle Club	1477
31.	Walnut Creek Rifle Club	1477
32.	Charlotte Rifle & Pistol Club	1476
33.	Piscataqua Rifle & Revolver Club	1471
34.	Springfield Y. M. C. A. Rifle Club	1465
35.	Marshalltown Rifle & Pistol Club	1463
36.	Mason-Dixon Rifle Club	1462
37.	Manhattan Rifle Club	1460
38.	U. S. Aggies Rifle Club	1455
39.	Pittsfield Gen. Elec. Athletic Assn.	1454
40.	Kittanning Rifle & Pistol Club	1454
50.	Boulder City Rifle Club	1451
51.	Murray Rifle & Revolver Club	1451
52.	Superior Rifle Club	1450
53.	Wellsboro Rifle Club	1447
54.	Forks Rifle Club	1443
55.	Anderson Rifle Club	1442
56.	Manchester Amer. Legion Rifle Club	1441
57.	*Towson Amer. Legion Rifle Club	1441
58.	Cold Spring Rifle Club	1433
59.	Cypress Hills Rifle Club	1406
60.	Eaton Merchants Rifle Club	1388
61.	Guide Lamp Rifle Team	1379
62.	Esso Rifle Club	1342
63.	Kingsport Rifle & Pistol Club	1325
64.	Brooklyn Edison Rifle Club	1301

PISTOL FINALS

Winner—National Trophy & Silver Medals

WASHINGTON PISTOL CLUB

Phillip Roettinger (Lt.)	288
Dave Lockling	273
Walter Walsh (Capt.)	278
Tom Berdeen	281
	1120

2nd Place—Bronze Medals

PISCATAQUA RIFLE & REVOLVER CLUB

A. M. Webber	280
H. W. Brooks	281
H. W. Berounsky	279
W. M. Becker	260
	1100

3rd Place—Bronze Medals

ST. PAUL RIFLE & PISTOL SHOOTERS CLUB

George Paine	284
C. T. Peterson	271
Martin Hense	273
Harold Wentlund	271
	1099

4.	El Paso Pistol Club	1099
5.	*Wilton Rifle & Pistol Club	1080
6.	Cedar Falls Pistol Club, Inc.	1080
7.	Lake of the Wood R. & R. Club	1071
8.	Hyde Park Y. M. C. A. R. & P. Club	1071
9.	Cerro Gordo Pistol Team #1	1048
10.	Forester Rod & Gun Club	1045
11.	Allegheny County Sheriffs	1039
12.	Gainesville Rifle & Pistol Club	1006
13.	Rockland Revolver & Rifle Club	983

* Denotes Winners of State Championships. (All Ties Broken According to NRA Rules.)

Just C. Jensen

Friends of Major J. C. Jensen, Ordnance Production Officer, Denver Ordnance Depot, were grieved to learn of his sudden death May 29, 1942. Major Jensen, 51, was born in Denmark and came to the United States at the age of 10 years. Surviving are his wife, a son—Lieut. Willard Jensen, Army Air Corps—and a daughter.

An excellent marksman and instructor and identified with the District of Columbia National Guard since 1916, Major Jensen was largely responsible for the splendid shooting records made in recent years by District teams at the National Matches. Always turning in a creditable record, Jensen-coached teams twice captured the Hilton Trophy, highest War Department award for service rifle marksmanship in the National Guard class.

Inducted in the Army with his National Guard Division early last year, Major Jensen was soon transferred to Frankford Arsenal where he served two months before joining the military staff of the Army's new ordnance plant at Denver. He was buried with military honors in Arlington National Cemetery on June 3.

Parker W. Bickford

Parker W. Bickford of Schodack Center, Rensselaer County, N. Y., was killed instantly in an accident April 30, 1942. Born in Kansas in 1887, Parker spent most of his life in Rensselaer County. He was one of the charter members and, for the last four years, president of the Forbes Rifle and Pistol Club.

Mr. Bickford was a valuable asset to any team, having the rare ability to come through when the going was tough. For his tolerance, loyalty and fanatical tenacity to principle Parker won the friendship and respect of hundreds of people. To Parker, more than any other individual, goes the credit for putting competitive shooting on the map in eastern New York. Mr. Bickford was an ardent conservationist and naturalist. He is survived by his mother, his widow and a daughter.—*Dermot C. Reilly, Vice President, Forbes Rifle and Pistol Club.*

Roy F. Riggs

Roy F. Riggs, long associated with the National Matches at Camp Perry and other big shooting events, died at his Alton, Ill., home June 1 after an illness of a month. He was 51 years old.

He was born at Decatur and educated at James Millikin University. He took a position at Western Cartridge Company in 1918 as an expert in ammunition ballistics. He was with Western for 22 years, until 1939.

WARTIME TOURNAMENTS

Many tournament committees have asked if they should cancel their tournaments during the war. Here is the Association's viewpoint on the subject.

Last February the NRA Executive Committee saw the necessity of curtailing its program for the duration. Both National and regional tournaments were cancelled. Class "B" tournaments (state and district championships) were continued, but on a reduced scale. Class "C" tournaments were also continued.

In most communities there are enough shooters to support local one day tournaments. The drop in attendance can be offset by economy of operation. Less expensive programs—smaller mailings, and merchandise prizes would be a saving.

Such tournaments are part of the training program. They offer the new shooter a place to prove his new shooting ability. Certain matches must be aimed directly at these new shooters—short matches of 10 or 20 shots; "practical matches" at short range, etc. Confine special matches to slow-fire to further ground beginners in fundamentals.

Local registered tournaments give many club members and new shooters their only opportunity to win classification. Once in the book he will keep the listing from year to year—and so make a good club member.

STOLEN GUNS

Winchester 52 bull gun, marksman stock, full sling and detachable arm hook, Serial 62572-B, with mounted 24 power Fecker scope, Serial 7947; Enfield special sporter, 30-'06 caliber, Pacific ramp front sight, hood Pacific rear peep, sheepskin case, no visible number. Stolen May 24 or 25 from Harry B. Kirby, 2440 Groveport Pike, Columbus, Ohio.

Winchester 70, Serial 229, caliber 30-'06, 24" barrel, factory sights, sheepskin case. Reward. Stolen November 4, 1941. Communicate with Cocking Service Station, Casper, Wyoming.

Winchester 52, serial 20767 with Lyman 3 power scope. Stolen April 11 from W. Leander, 2922 Lyndale St., Chicago, Illinois.

Lyman Super Targetspot, serial 1485, 15 power scope. Stolen May 17 at Lima, Ohio. $25.00 reward for return. R. S. Miller, Route 2, Elida, Ohio.

Model 52 Winchester bull gun with #1 Marksman stock; Serial number 62267; Badger keeper, regulation sling; blanked sights; flat top receiver with eight power Winchester scope. Erie Police notified. Communicate with Robert P. Clancey, 509 Dunn Boulevard, Apartment 7, Erie, Pennsylvania.

CHALLENGES

Brooklyn Rod and Gun and Arlington Junior Rifle clubs desire postal matches with senior or junior teams, five high of ten men to count. Harold H. Nathanson, 1784 49th Street, Brooklyn, N. Y.

Parkway Rifle and Pistol Club wants postal matches with both rifle and pistol, five high of ten shooters to count. Charles P. McLaughlin, Secy., 2 Peter Parley Rd., Jamaica Plain, Mass.

COMING EVENTS

The registered tournaments are indicated as follows: B—State Championships or large District Matches; C—Local. ***Unregistered*** **matches are not coded. Classification of competitors for prize awards indicated by asterisk—C*, etc.**

JULY

RIFLE

2-3 **Virginia**, Instructors School, Quantico. Major George Van Orden, Marine Base, Rifle Range Detachment.
4-5 **Virginia** (B*), Eastern Small Bore, Quantico. Major George Van Orden, Marine Base, Rifle Range Detachment.
4-5 **Illinois** (B*), Sheridan Club, Deerfield. B. C. Meyer, 919 Forest Ave.
4-5 **Pennsylvania** (B*), Vand.-Carnegie, Vandergrift. R. M. Walbeck, 245 Sherman Ave.
4-5 **Ohio** (B*), Ohio State, Mt. Gilead. C. I. Greer, P. O. Box 123, Barberton.
5 **Louisiana** (C*), Summer Small Bore, Monroe. John E. Zufall, P. O. Box 1181.
5 **California** (C*), Semana Nautica, Santa Barbara. George C. Warden, 621 Valerio St.
5 **Georgia** (C*), Gainesville Rifle, Gainesville. William E. Fennell.
11-12 **Illinois** (B*), Blackhawk, Aurora. Cora Converse, Box 153, Oak Glen.
11-12 **California** (B*), Calif. State, Richmond. J. Pedroni, 205 Nat. Bank Bldg., Salinas.
11-12 **New York** (B*), Southern Tier, Elmira. Neil Wheeler, Hendy Avenue.
11-12 **West Virginia** (C*), Registered Rifle, Parkersburg. R. A. Simpson, 1407 Spring St.
12 **New Mexico** (C), Small Bore, Santa Fe. L. D. Wilson, 119 E. Buena Vista Ave.
12 **Colorado** (C*), South. Division, Canon City. J. L. Southcotte, 420 N. Spruce St., Colorado Springs.
12 **Minnesota** (C*), Reg. Rifle, Albert Lea. R. Gunderson, 1100 W. College St., Austin.
12 **Texas** (C*), Small Bore, Kilgore. Hugh P. Prince, Route 2, Gladewater.
12 **West Virginia** (C*), Reg. Rifle, Parkersburg. R. A. Simpson, 1407 Spring St.
19 **Kansas** (C*), Sunflower, Topeka. L. E. Brooks, 1419 Van Buren St.
19 **Illinois** (C*), Grant Memorial, Rockford. Dr. S. A. Oren, 907 Talcott Bldg.
19 **Michigan** (C*), Outdoor Small Bore, Flint. A. J. Marxhausen, 2521 Thomas St.
19 **Oregon** (C*), Registered Rifle, Portland. Dr. C. A. Lewis, Weatherby Bldg.
25-26 **Wisconsin**, .30 Caliber, Racine. Oliver Moody, 5527 N. 35th Street, Milwaukee.
26 **Wisconsin** (C*), Westby-Viroqua, Westby. Henry A. Nerison, Westby.
26 **Indiana** (C*), Muncie Rifle, Muncie. Fred Shroyer.

PISTOL

2-3 **Virginia**, Instructors School, Quantico. Major George Van Orden, Marine Base, Rifle Range Detachment, Quantico.
4 **Georgia** (C*), Pistol Tournament, Gainesville. William E. Fennell.
4-5 **Virginia** (B*), Eastern Pistol, Quantico. Major George Van Orden, Marine Base, Rifle Range Detachment, Quantico.
4-5 **Colorado** (C*), Summer Pistol, Denver. John M. Schooley, Treasury Dept., Denver.
4-5 **West Virginia**, Mountain States, Fairmont. **(Cancelled)**
4-5 **Washington**, Summer Pistol, Coulee Dam. R. H. Humphreys, Box 426, Coulee Dam.
12 **Washington** (C*), Buddy League, Seattle. G. B. Gilmour, 525 Findlay St.
12 **Pennsylvania** (C), Registered Pistol, Broomall. Lawrence Oster, 2800 Township Line.
12 **Michigan** (C*), Registered Pistol, Flint. A. J. Marxhausen, 2521 Thomas St.
12 **Illinois** (C*), Sheridan Club, Deerfield. B. C. Meyer, 919 Forest Ave.
19 **D. C.** (C*), Park Police, Washington. E. S. Mast, 20 Calvin Street, Cottage City, Brentwood, Md.
19 **Colorado** (B*), State Pistol, Denver. L. F. Markle, 1006 Olive St.
25-26 **California** (B*), Calif. State., Los Angeles. J. Pedroni, 205 Nat. Bank Bldg., Salinas.
25-26 **New Jersey** (B*), Assc. N. J. Clubs, Trenton. Bill Lewis, Box 1420.
26 **Illinois** (C*), Tri-County, Lincolnwood. R. W. Maloney, 5553 W. Grace St., Chicago.
26 **Minnesota** (C*), Outdoor Pistol, Duluth. G. H. Paris, 301 W. Superior St.

AUGUST

RIFLE

2 **Massachusetts** (C*), Registered Rifle, Shelburne Falls. Emory C. Broadhurst.
2 **Minnesota** (B*), Minnesota State, Albert Lea. H. R. Smith, 2136 Palace Ave., St. Paul.
2 **New Mexico** (B*), State Small Bore, Clovis. L. D. Wilson, 119 E. Buena Vista, Ave., Santa Fe.
2 **Oregon** (C*), Finley Memorial, Portland. Ralph Pride, Route 9, Box 590 K.
9 **New York** (C*), Central New York, Oneida. Donald D. Devitt, State Police.
9 **Wisconsin** (B*), Wisconsin State, Racine. Oliver Moody, 5527 N. 35th Street, Milwaukee.
9 **Pennsylvania** (C*), Summer Rifle, Allentown. A. M. Newhard, 111 E. Susquehanna St.
15 **North Carolina** (C*), Summer Rifle, Greensboro. J. R. Holshouser, City Hall.
15-16 **Oregon** (B*), State, Eugene. E. L. Plogg, 1911 S. E. Ankeny St., Portland.
16 **New York** (C*), Indian Summer, Elmira. Neil Wheeler, Hendy Avenue.
16 **Illinois** (C*), Camp Grant, Rockford. Dr. S. A. Oren, 907 Talcott Bldg.
23 **Wisconsin**, Janesville Club, Janesville. James D. Wenstrom, 217 N. Walnut St.
30 **California** (C*), No. California, Richmond. C. DeWitt, 3701 Lincoln Ave., Oakland.

PISTOL

2 **Florida** (C*), East Coast, Fort Lauderdale. A. T. Kelly, Jr., Box 43, Coral Gables.
2 **Wisconsin** (C*), Mid-Summer, Milwaukee. Leonard P. Yelg, 1028 South 36th St.
2 **Wisconsin**, Milwaukee Club, Racine. James D. Wenstrom, 217 N. Walnut St., Janesville.
2 **Ohio** (B*), Ohio Championship, Mt. Gilead. C. I. Greer, P. O. Box 123, Barberton.
2 **Maine** (B*), State, Auburn. Samuel Clark, Jr., c/o G. S. Flood Co., Waterville.
9 **New Jersey** (C*), Mid-Summer, Trenton. William Lewis, Box 1420.
15-16 **Indiana** (B*), State, Frankfort. Wilson E. Conner, Merchants Bank Bldg., Terre Haute.
16 **Illinois** (C*). Sheridan Club, Deerfield. B. C. Meyer, 919 Forest Ave.

DOPE BAG ☆ ☆ ☆ Conducted by F. C. NESS

THIS MONTH:

Handloads Suggested · All .30-caliber Bullets · All Popular Powders · Pyro and 1185 Ballistics · Different Trade Lots · Target Holder · Revolver Rest · Rifle Rest Heavy Load Patterns · 40 Yards to 70 Yards 12 Gauge · 10 Gauge · Trade Dope · Letters

.30 Caliber Handloads. Last month we classified the various military and sporting cartridges manufactured for .30-caliber military rifles, including the .30-'06, .30-40 Krag, the .303 British and the 7.62-mm. Russian. Also included was the .300 Savage or "short .30-'06", which, of course, is not a military caliber. This month we follow with handloads using jacketed bullets, including all bullets mentioned last month as well as others.

The lightest available jacketed bullet is the 74-grain .32 A.C.P. In the .30-'06 this pistol bullet can be given 3800 f.-s. with 42.5 grains of No. 2400 powder. A more practical load is 30.0 grains at 2900 f.-s., or 18.0 grains at 2000 f.-s. The seating depth is only .165 inch. The 80-grain .32-20 rifle bullet is next in weight. In .310-inch diameter it gives good results in .308-inch barrels. In .312-inch diameter it does better in oversize (.310-inch) .30-caliber barrels. The most practical velocity is 3000 f.-s. or less. That means a maximum of 34 grains of No. 2400 in the .30-'06, 29.0 grains in the .30-40 Krag, 28.5 grains in the .300 Savage and 30.0 grains in the 7.62 Russian. In the .303 British, 26 grains would be the maximum used, for 2900 f.-s. m.v.

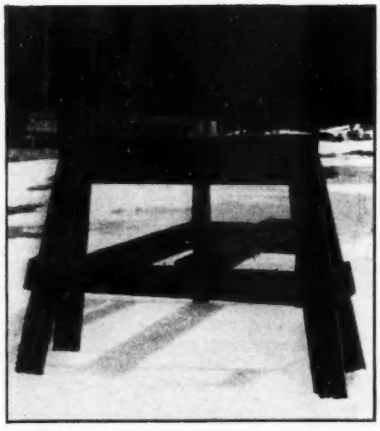
These loads are all a little heavy for the 85-grain Mauser pistol bullet, which should be given a lower velocity anyway. Loads of HiVel No. 2 suitable for both the 80-grain and 85-grain bullets would be: 43 grains in the .30-'06 (2775 f.-s.), 36 grains in the .30-40 Krag (2740 f.-s.) and 38 grains in the .300 Savage (2750 f.-s.). More-popular loads which were successfully used in the .30-'06 were 25 grains of No. 80 behind the 85-grain bullet and 27 grains with the 80-grain bullet. An "ear-splitting", but accurate, load I once used in my .310-inch .30-'06 Mauser was 49.0 grains of I.M.R. No. 18 behind the 80-grain bullet. The muzzle velocity was probably less than 3000 f.-s., but the muzzle blast seemed not much less than that of a 20 mm. cannon. Bill Tompkins had good success using the 80-grain bullet in the Krag rifle with 33 grains of HiVel No. 3 while it lasted and, later, with 35 grains of No. 4198.

In the order of weight, the next bullet is the 93-grain Luger pistol bullet. It is the most accurate of all light bullets in .30-caliber rifles and can be driven at higher velocities than the others without unduly sacrificing accuracy. Those shooters who could get nowhere with the 80-grain bullet generally met with success when they tried this 93-grain weight. I have had certain lots of O.P. bullets which could not withstand velocities above 3000 f.-s., but never had the S.P. form disintegrate in flight, and our favorite loads approach 3500 f.-s. m.v. The diameter of this bullet is .310 inch, but it performs well in most .30-caliber rifles without sizing. The maximum load in the .30-'06 with old-style primers (F.A. No. 70) is 54.8 grains of HiVel No. 2, which develops 3500 f.-s. The seating depth is .267 inch. I have killed woodchucks at well over 200 yards with this bullet in the .30-'06. The m.v. was about 3450 f.-s. Our load was 57 to 60 grains of No. 4320 and modern N.C. primers. The lightest load had plenty of oomph, or fully 3200 f.-s. m.v., but even 59 and 60 grains gave very satisfactory accuracy. We also used 57 grains of I.M.R. No. 1185 powder with F.A. No. 70 primers. Other and lighter loads would have to be used in the .300 Savage and .30-40 Krag, and then the 93-grain bullet would not reach 3000 f.-s. This load should be 45 grains of No. 3031 in both.

The 100-grain .32-20 bullet can be used in .30-caliber rifles. Effective loads in the .30-'06 are 27 grains of 4198, 43 grains of HiVel No. 2, 47 grains of 3031 or 48 grains of No. 4064, for fully 2700 f.-s. For similar velocities in the .300 Savage use 38 grains of HiVel No. 2, 42 grains of 3031 or 36 grains of 4198. In the .30-'40 Krag the loads would be 37 grains of HiVel No. 2, 35 grains of 4198 or 43 grains of 3031. In the .303 British it would be 37 grains of HiVel No. 2; and 40 grains of this Hercules powder in the 7.62-mm. Russian. These oversize, but relatively soft, .32-20 bullets are at their best in the latter two calibers in which the same loads can be used with the 115-grain .32-20 bullet. In the other 308-inch .30-caliber rifles the 110-grain .30-30 bullet can be substituted. Its .307-inch diameter is too small for the two larger bores.

For higher velocities in .30-caliber rifles the 110-grain .30-'06 bullet is available. With this tougher bullet, maximum loads should be approached as closely as possible, but not exceeded. I will give the maximum loads for modern noncorrosive primers here. In the .30-'06 these are: 52.5 grains of Hivel No. 2, 57.5 grains of 3031, 60.5 of 4320 and 59 grains of 4064, all giving 3300 f.-s. or slightly over that in 24-inch barrels. The seating depth of this bullet is .18 inch giving a cartridge overall length of 3.01 inches in the .30-'06, 2.84 inches in the 30-40 Krag, and 2.38 inches in the .300 Savage. The maximum Krag loads are 41.1 grains of HiVel No. 2 (3040 f.-s.) and 45.5 grains of 3031 (2950 f.-s.). My old favorite, and very accurate load, in the Krag, requiring old-style primers, was a case heaping-full of I.M.R. No. 17½ powder which was slightly compressed in seating the 110-grain bullet. In the .300 Savage the maximum loads with modern primers are: 42.8 grains of HiVel No. 2 (3120 f.-s.) and 40 grains of 4198 (3045 f.-s.).

Stanwood Rifle Rest



There was also a 115-grain "Vermin" bullet made by Western Tool & Copper Works for each of these three calibers. They are designed for disintegration upon impact and have thinner jackets up in front than regular W.T.&C.W. game bullets for the three .30-caliber rifles. These 115-grain bullets require a reduction of at least a grain weight in the powder charges as compared with the maximum limits given in the paragraph above for the 110-grain bullet. The W.T.&C.W. 120-grain bullet for the .30-'06 required the maximum loads for 150-grain bullets.

There was also a 125-grain .30-30 bullet made by Peters C. Co., which gave fine results in those .30-caliber barrels which had short throats. Even Krags and M-1917 barrels throated for this bullet gave 1¼-inch groups at 100 yards with proper full-power loads. Charges suggested for the 180-grain bullet are about right for this 125-grain bullet, which is more lightly constructed than .30-'06 bullets. There was also a double-jacket Barnes bullet of this 125-grain weight, and .30-'06 loads ranged from 53.5 to 58 grains of 4320.

There are many 150-grain bullets made in normal times, and we will have to spread our classification here in order to deal with them according to purpose. This is the minimum weight of .30-caliber bullet for game shooting, and the expanding type must be used for this purpose. They are best adapted for deer, sheep, antelope and caribou.

One of the best for deer stopping is the old U.S.C.Co. 145-grain Hollow Copper Point, made in recent years by Winchester. Then there are the other similarly-pointed nose caps, including the Bronze Point and Protected Point and then the semi-pointed Open Point bullets, all of 150-grain weight. Although the 145-grain H.C.P. bullet has proven to be effective as a deer stopper at much lower velocities, these 150-grain deer-slayers depend principally on instantaneous disruption of large areas of internal tissues or hydraulic pressure in fluid parts of the animal's body for their shocking power, and such killing effect out at game distances requires a high initial velocity of approximately 3000 f.-s. m.v. We can readily get this velocity in our .30-'06 rifles, but in the Krag, 7.62-mm. Russian and .300 Savage we have to use softer or more lightly constructed bullets for equal effect. Such a bullet would be the 150-grain .30-30 Lubaloy open point at 2600 f.-s. or the 145-grain H.C.P. at 2700 f.-s.

The seating depth of these bullets is a quarter inch. With modern N.C. primers the maximum loads are: In the .30-'06, 48.5 grains of HiVel No. 2, 54 grains of 3031, 57.5

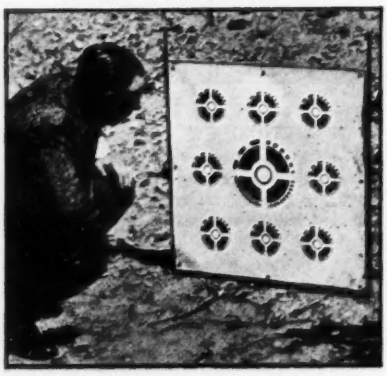
grains of 4320 and 57 grains of 4064, all reaching 3000 f.-s. m.v. In the .30-40 Krag, 38.2 grains of HiVel No. 2 (2680 f.-s.), 42 grains of 3031 (2665 f.-s.), 44 grains of 4320 (2680 f.-s.) and 46 grains of 4064 (2770 f.-s.). In the .300 Savage 39.2 grains of HiVel No. 2 (2710 f.-s.), 35.5 grains of 4198 (2600 f.-s.) and 41 grains of 3031 (2565 f.-s.). In these .300 Savage loads the seating depth is .40 inch; and in the 7.62-mm. Russian, for which the maximum load is 43.6 grains HiVel No. 2, only .216-inch seating depth and a quoted velocity of 2720 f.-s. m.v.

There were W.T.&C.W. 150-grain bullets for the .30-'06, .30-40 Krag and .300 Savage, as well as one in .311-inch diameter for the .303 British. There were also 147-grain hollow-base military bullets for the 7.62-mm. Russian, a Winchester 145-grain H.C.P. and a Remington 150-grain Bronze-Point for the latter. These bullets for the Russian "3-line" Nagant are too large for tight-necked chambers and .308-inch barrels, but they can be used in the .303 British rifles. The 150-grain Service bullets for the .30-'06 including the present M2 bullet can be used for target range practice with the same loads, already given. Old Service loads ranged from 44.5 to 49.8 grains of Pyro D.G. according to the powder lot, the most commonly used being 47.5 grains. Lot No. 442 in the 49.8-grain charge gave the 150-grain bullet an instrumental (78 feet from the muzzle) velocity of 2636 f.-s. in the .30-'06 and developed a mean chamber pressure of 45,150 pounds per square inch. With some lots of No. 1185 military powder the most commonly used loads behind the 150-grain bullet with F.A. No. 70 primers were: 53 grains in the .30-'06, 50 grains in the 7.62-mm. Russian and 46 grains in the .30-40 Krag.

If you have on hand any .308-inch 160-grain or 165-grain jacketed bullets, treat them as 170-grain .30-caliber bullets for reloading. The first standard .30-'06 factory load involving this weight of bullet was the M-1922-E loaded at Frankford Arsenal with progressive-burning I.M.R. No. 17 powder to 2675 f.-s. velocity. This was the short-lived experimental 170-grain pointed F.M.J. bullet which had a 6-degree boat-tail.

In handloads the 170-grain .30-30 bullet can be used. Some of these are as small as .3065 inch, while other lots and makes are a full .308-inch diameter. These bullets expand readily to quickly fill the groove diameter and seal the bore. Pressures run higher than would be expected for the bullet weight, and loads should be based on those recommended for the 180-grain bullet in the powder tables. Since the most effective velocity with these 170-grain .30-30 bullets is 2500 f.-s. m.v., typical .30-'06 loads with modern N.C. primers would be: 44 grains HiVel No. 2, 37.5 grains 4198, 43 grains 3031, and 45 grains of either 4320 or 4064. Equivalent loads in the .30-40 Krag would be: 38.5 grains 3031 (2470 f.-s.), 40 grains 4320 (2420 f.-s.) and 42 grains 4064 (2565 f.-s.). Bill Tompkins likes 45 grains of Pyro D.G. behind this bullet in the .30-'06. In the .300 Savage a good load is 36.7 grains HiVel No. 2 (2490 f.-s.) with the 170-grain .30-30 bullet seated .465-inch deep.

Dope Bag Target Holder



The M1 172-grain 9-degree boat-tail Service bullet can be safely hollow-pointed in a lathe or in a jig for game shooting, as the boat-tail protects the core, exposed at the base, and holds it from blowing out of its jacket. This practice is dangerous with the M2 Service bullet or other flat-base bullets which have exposed cores. When the bullet is held in a jig which insures adequate uniformity and concentric alignment of the nose cavity, we have found that flattening the point and drilling a 1/16-inch hole ¼-inch deep does not adversely affect the accuracy of these bullets. Some varmint shooters drill ⅛-inch holes ⅜-inch deep in these bullets and report good shooting results.

Because N.R.A. members who have supplies of these M1 bullets generally also have military powder on hand, I am quoting laboratory test figures on various lots of I.M.R. No. 1185 used with these bullets and F.A. No. 70 primers in the .30-'06 rifle, including instrumental velocities and mean pressures. The seating depth is .480 inch and the over-all length, 3.34 inches.

Lot No.	Charge	F.S.	Pounds
1592	50.0 grs.	2600	43,000
1670	49.2 "	2636	46,530
"	48.5 "	2606	45,393
1680	48.8 "	2639	46,270
"	48.4 "	2612	45,000
1688	49.0 "	2640	47,510
"	48.3 "	2600	45,500
1700	49.5 "	2600	45,000
1715	48.0 "	2600	45,000

I.M.R. No. 1185 is cut eleven to the inch and in its No. 1186 form it is cut 22 to the inch for more uniform feeding through gravity measures and loading machines. I.M.R. No. 1186 in Lot 1-1929 was used in 1929 National Match ammunition. The mean load was 50.2 grains which averaged 2767 f.-s. and 50,365 pounds pressure. The maximum load was 50.4 grains, giving 2800 f.-s. and 52,750 pounds pressure. Lot No. 442 of Pyro D.G. powder previously mentioned for the 150-grain bullet was also tested with the M1 bullet. The same load of 49.8 grains now developed 2599 f.-s. and 49,600 pounds pressure. This was considered too high for this quick-burning propellant, even with old style primers, and the maximum load for the M1 bullet was established at 48.8 grains giving 2550 f.-s. and 48,460 pounds pressure.

Maximum loads of commercial propellants based on the same M1 bullet and F.A. No. 70 primer in the .30-'06 would be: 49 grains of HiVel No. 2 (2830 f.-s.), 50 grains of 3031 (2800 f.-s.), 39.5 grains of 4198 (2615 f.-s.), 51 grains of 4320 (2860 f.-s.) and 52 grains of 4064 (2820 f.-s.). The I. M. R. loads are maximum for modern N.C. primers. When such primers are used with HiVel No. 2 the maximum load would be 46.5 grains. With any tin-incorporated propellant such as 1185, 17½ or 15½ it is advisable to use old-style primers, such as F.A. No. 70, Western 8½G or Winchester 35 N.F.

The M1 bullet is not a desirable one in the .300 Savage, but it can be used. The maximum loads are: 36 grains HiVel No. 2 (2430 f.-s.), 33 grains 4198 and 39.5 grains 3031. Velocities are just under 2400 f.-s. It is a good bullet for the .30-40 Krag in which the maximum loads are: 36.2 grains of HiVel No. 2 (2460 f.-s.), 27.5 grains 4198 (2130 f.-s.), 38.5 grains 3031 (2470 f.-s.), 40 grains 4320 (2420 f.-s.) and 42 grains 4064 (2565 f.-s.). In the target shooting realm a good, moderate and accurate load, up to 500 yards, and favored for 300 meters in the International Match, was 36.4 grains of HiVel No. 2 in the .30-'06 behind the M1 bullet or 180-grain target bullets. The pressure was below 30,000 pounds and the m.v., 2200 f.-s. or slightly higher. An equivalent load in the .30-40 Krag would be 32.5 grains HiVel No. 2 and in the .300 Savage, 33 grains. An effective deer load in the .30-'06 is the W.T.&C.W. 172-grain, .30-40 Krag Cavity Point at 2700 f.-s. m.v.

In the .303 British the regular 174-grain bullet of that .311-inch diameter should be used. The maximum loads are: 32.7 grains of HiVel No. 2 (2200 f.-s.), 43 grains of 3031 (2510 f.-s.), 45 grains of 4320 (2515 f.-s.) and 43 grains of 4064 (2400 f.-s.). The seating depth is .43 inch making a cartridge overall length of 3.05 inches.

The 180-grain bullet is available in expanding and target types and in boat-tail and flat-base forms. In moderate loads what is true of the M1 bullet applies to the 180-grain bullet as well. In maximum loads a few differences must be observed. With modern noncorrosive primers the maximum loads are: In the .30-'06, 45 grains of HiVel No. 2 with a seating depth of .472 inch; and, with a seating depth of .48 inch, 41 grains of 4198 (2560 f.-s.), 48.5 grains of 3031 (2745 f.-s.), 53.5 grains of 4320 (2785 f.-s.) and 51 grains of No. 4064 (2765 f.-s.). Some shooters use a compressed load of No. 4350 powder behind this 180-grain bullet and the M1 bullet. The heaviest load we have used behind the latter is 58.0 grains of No. 4350 with F.A. No. 70 primers and we considered it a heavy one. In the .300 Savage and .30-40 Krag maximum loads for the 180-grain bullet are the same as those for the M1 bullet already given. See above. The seating depth of the 180-grain bullet for the I.M.R. powder loads is .40 inch in both the Krag and .300 Savage. In the latter the maximum load, 34 grains of 4198, gives 2375 f.-s. and 40 grains of 3031 develops the maximum safe velocity of 2450 f.-s. using a cartridge over-all length of 2.58 inches.

The 190-grain .303 Savage bullet is an uncommonly good one for the .30-40 Krag because its round-nose head fits the Krag throat to perfection and its weight is about right for game-killing effectiveness. Bill Tompkins found a lot of R.A. make which miked .3095 inch and he used them also in the 7.62-mm. Russian with a charge of 39 grains Pyro D.G. His pet Krag load was 38.5 grains of the same powder. Samuel Osgood has a 24-inch barrel of .308-inch groove diameter on his .30-40 Krag and he says the Western 190-grain bullet gives him 2300 f.-s. at 25 feet from the muzzle. His load of 45 grains No. 4350 and R.A. No. 9½ Kleanbore primers gives 1½ × 1⅜ inches spread at 100 yards, and he recommends it highly to all Krag owners. With all regular propellants charges recommended for 220-grain bullets can be used behind these 190-grain slugs. With old-

style primers, up to 38 grains Pyro D.G. or 41 grains No. 1185 could probably be used in the .30-40 Krag with these .303 Savage bullets.

The W. T. & C. W. and the Peters C. Co. made 200-grain .30-caliber bullets. Fred N. Barnes also made some of this weight which he hoped to drive at high velocity by seating them shallowly in the case neck (for long rifle actions) in order to make room for heavy charges of No. 4350 powder. The heaviest load mentioned for the .30-'06 was by Byron Cottrell and for the Peters 200-grain bullet. This was 59 grains of No. 4350 and the R.A. No. 9½ K.B. primer, said to give 2600 f.-s. m.v. in a 26-inch barrel. Under the same conditions the 220-grain bullet gave the same velocity with 57 grains of No. 4350. I do not recommend such loads. The maximum load of HiVel No. 2 for the 200-grain bullet is 45.6 grains (2560 f.-s.) in the .30-'06, which must be cut 5% for modern primers.

The 220-grain .30-caliber bullet is an ancient and honorable one which came ahead of all others, the .30-40 Krag paving the way for the M-1903 load, with the same bullet, before the .30-'06 cartridge was born. The maximum load in the .30-'06 with F.A. No. 70 primers is 44.5 grains HiVel No. 2 (2415 f.-s.) which must be cut 5% for noncorrosive primers. Other maximum loads are: 49 grains of 4320 or 4064 in the .30-'06 at this same velocity level; and in the .30-40 Krag, 27 grains 4198 (1895 f.-s.), 37 grains 3031 (2130 f.-s.), 39 grains 4320 (2190 f.-s.) and 41 grains 4064 (2265 f.-s.). Everything considered, the 220-grain S.P. bullet at 2000 to 2200 f.-s. is perhaps the best game bullet in the .30-40 Krag. Our own loads are: 36 grains of 4320 in the Krag with N.C. primers and 47 grains in the .30-'06 with F.A. No. 70 primers. We have also had reported: 46 grains of 1185 or 42 grains of Pyro D.G. in the .30-'06 and, in the Krag, 40 grains and 38 grains, respectively, of these two propellants, presumably all with old-style primers. Another heavy load which has been reported for the .30-'06 and modern primers was 56 grains of No. 4350 behind the Peters 225-grain belted bullet; also 47.5 grains of 4320 and 45 grains 3031, same bullet.

The seating depth is .45 inch in the .30-'06 and .43 inch in the .30-40 Krag for I.M.R. powder loads with 220-grain bullets, making the .30-'06 overall cartridge length, 3.29 inches and that of the .30-40 Krag, 3.14 inches. For HiVel No. 2 the Hercules seating depth was .441 inch in the .30-'06 case and .420 inch in the Krag case. Our own seating is the same, or .420 inch. In the .30-'06 for the 225-grain Peters bullet we use a seating depth of only .380 inch. The Ideal Handbook gives a cartridge overall length of 3.33 inches for this combination.

In the .303 British the regular .311-inch 215-grain bullet should be used. Maximum loads are: 30.8 grains of HiVel No. 2 (1950 f.-s.), 40 grains of 3031 (2265 f.-s.), 43.5 grains of 4320 (2340 f.-s.) and 42.5 grains of 4064 (2275 f.-s.). The seating depth is .38 inch making a cartridge overall of 3.05 inch. The Hercules seating depth was .357 inch and the mean pressure 35,000 pounds in the load given above. Before the war the W.T.&C.W. made .311-inch bullets for the .303 British in 120, 150 and 172-grain weights.

Following is some assorted dope collected as received here, but not previously given. In the .30-'06: 17.5 to 25.0 grains of 1204 and the 115-grain .32-20 M.C. bullet; 47.5 grains of 17½ and the 80-grain .32-20 bullet; 48.7 grains of 17½ and the 110-grain .30-30 bullet; 53 grains HiVel No. 2 and the 110-grain .30-'06 bullet; 45.0 grains of 1185 and the W.R.A. 110-grain .30-30 bullet; 43 grains of 3031 and the W.R.A. 150-grain O.P. bullet. In the .30-40 Krag; 46 grains of 1185 and the 80-grain bullet; 45.5 grains of 1185 and the W.R.A. 110-grain bullet. In the .300 Savage: 46 grains of 1185 or 36 grains of HiVel No. 3 and the 110-grain. All loads above in this final paragraph gave good accuracy, according to our informants.

* * *

Target Holder. In order to expedite target changes on the testing range, yours truly designed a quick-change butt for our Scope-Test targets. This consists of a soft-wood frame, 28 x 28 inches, O. D., and metal eyes screwed in the sides for the upright, metal, supporting rods. Four thumb tacks secure the paper in calm weather, but eight are required in the wind. Frame and all can be pulled up leaving the side rods ready to receive a fresh frame and target. They are convenient for use as shooting screens to catch midrange impacts. See the cut on page 48.

For both pistol and rifle shooting we usually set these frames up in a series of three, requiring only four side rods. For long-range shooting, bullet-drop impacts and for group shooting with shotgun slugs we use a hinged double-frame in the middle with its second frame on top, which latter is held erect by an ordinary hook and eye without any other support. This would require better bracing in windy weather, but we pick calm days for all such shooting.

* * *

A Revolver Rest. Al Barr of the N. R. A. devised a sawbuck-and-string revolver rest, for prone-rest shooting of handguns. It could be improvised anywhere in the country or in camp, using forked sticks. Back and head are rested against the ground and a tree or stump or hub cap and the two hands are rested on the abdomen. It provides a comfortable and steady position with the barrel resting easily on the suspended loop of cord. Because of the gas escape at the cylinder-gap of revolvers, it is necessary to protect the legs and trousers from burns by wearing chaps or a heavy duck cover. See the cut on this page.

* * *

Another Rifle Rest. "Chief" Stanwood, proprietor of the "Big Chief Camps" at East Sullivan, Maine, is an exhibition caster of tournament caliber with fly or bait. He is also an all-around shotgun shooter of state-championship proficiency. He also finds time for pistol and rifle practice, and he has designed a shooting bench with an adjustable rising ramp rest, a stationary ramp, a sliding seat and a table contoured to fit the body in order to provide a comfortable position with a secure rest for seat, side, elbow, shoulder and forearms. See the cut on page 47.

* * *

Long Range Patterns. Last month we reported typical 16-gauge shot patterns which compared the shot spread of the same chokes and loads at 20 yards and 40 yards. Now we go on to longer ranges with heavier shot charges in the 12 gauge and 10 gauge.

In order to investigate this progressive spreading of the shot pattern, further, we tried a few patterns at 40, 50 and 60 yards at 70° F. To simulate field conditions we employed an arbitrary target and then held off at long range to center our patterns on it, exactly as we would have to do on game. The target was 28 x 28 inches and contained 49 four-inch squares. The gun we picked was the M-12 Winchester Heavy Duck Gun whose 32-inch barrel was chambered for 3-inch 12-gauge shells. We started with 2¾-inch, Federal Hi-Power cases containing the equivalent of 3¾ drams and 1¼ ounces of No. 6c, or about 280 pellets.

Dope Bag Revolver Rest

You Have a Right To Feel Proud

(Outdoor)

(Actual Size)

Your ability to handle a rifle or pistol is an important asset in National Defense whether or not you are subject to military service.

Send for an enameled lapel button indicating your qualification.

Let your friends know—You can shoot—.

Medal 75¢—Button 50¢—Brassard 50¢
(All three $1.50)

WRITE FOR INFORMATION

•

NATIONAL RIFLE ASSOCIATION
Scott Circle Washington, D. C.

(Gallery)

FREE! GUN CATALOG

SPECIAL! Lyman Reloading Tools. All Calibers. Weaver 29S, $12.55. M/330, $27.35. Gov't Oilers and Cleaners 29¢. Batsch & Lomb 20X Draw Tube, $32.00. Argus Spotting Scopes, $62.50.

SPECIAL CLOSE-OUT CARTRIDGES Per Round

5MM Velo Dog.... 2¢	41 Short Colt blk powder ..... 2¢
22 Winchester C. F. 2¢	35 S & W automatic 4¢
38 Short rim fire.. 1¢	30 Remington auto-matic ..... 5¢
38 Long rim fire... 1¢	
7.65 Mauser..... 6¢	

FISHERMEN! Send For Free Bargain Illustrated Fishing and Archery Catalog.
Medal-Award Catalog 10¢. Camera Catalog 10¢. Tennis Catalog 5¢. Golf Catalog 5¢.

J. WARSHAL & SONS First & Madison-B Seattle, Wash.

MEDALS and TROPHIES

Write for Your Free Copy of "Shooting Awards," illustrating modern and attractive prizes for pistol and rifle club competitions.

L. G. BALFOUR COMPANY
Attleboro Massachusetts
Branch Offices in 50 Principal Cities

HI-STANDARD

.22 AUTOMATIC

High Standard experience and equipment are now all out for Defense. Henceforth, Target Pistol deliveries must defer to the emergency.

HIGH STANDARD MFG. CORP., 81 Foote St., New Haven, Ct.

• • • • The Soldier's *Professional* Journal

To keep abreast of the latest developments in the equipment, tactics and technique of the newly streamlined Ground Force you should read, regularly, the INFANTRY JOURNAL —widely quoted 96-page monthly journal of the United States Infantry Association. $3.00 per year. Sample copy 15¢ in stamps.

INFANTRY JOURNAL, INC.
1113—17th Street, N.W., Washington, D. C.

LEE TARGETS

Heavy tagboard, accurate in all dimensions, jet black bullseyes. Prices F.O.B. Portland 100 1000

50 ft., 10 bulls....	.85	$6.00
50 ft., Slow Fire Pistol	.85	6.00
50 ft., R.&T. F. Pistol	.85	6.00
50 yard, 2 bulls.....	.85	6.00
50 yard, 5 bulls.....$1.20		9.50
100 yard, 6" bull... 1.20		9.50

Write For Free Samples

ARTHUR E. LEE, R.R. #1, Ridgeville, Indiana

.22 CAL. SISK BULLETS

About a year ago, at the request of some Hornet shooters, I began manufacture on a 35 gr. sharp-pointed bullet for the Hornet. Because of the demand for my regular line I was unable to finish these until now. The price is $1.20 per hundred. These are the only Hornet bullets I have now.

R. B. SISK Iowa Park, Texas

GUNS—TELESCOPES—SUPPLIES
Ask About Our Time Payment Plan
Official N. R. A. Targets
Send 20¢ for 68 page catalog.
Refunded first order
WISLER WESTERN TARGETS
543 Clay St. San Francisco

At 40 yards there were 134 hits on the target, or 2.75 per four-inch square. At 50 yards there were 123 hits, or 2.5 per square. At 60 yards there were 75 hits or 1.53 per. This last pattern was pretty thin, making any increase in the range impractical. By ratio of pellets in the entire target to those in the shot charge, the 40-yard pattern made 47.8%. At 50 yards it fell off but 4%, to 43.9%. At 60 yards it was spreading fast, only 26.8% reaching the target. Whereas the area of the 30-inch circle contains 706.86 square inches our 28 x 28-inch target had an area of 784 square inches. At 20 yards, this Winchester barrel spreads large shot from Federal Hi-Power loads into a 13¼-inch circle.

Our next step in this investigation was to use 3-inch cases in that 3-inch chamber and heavy loads of large shot. The first load of this type was 1⅝ ounces of No. 4c (209 pellets by count) and the equivalent of 4¼ drams of powder. At 20 yards this load spread to a 16-inch circle, or about 16 four-inch squares contained the entire charge. At 40 yards there were 142 hits on the target (67.94%) or 2.9 hits per four-inch square. The spread was 38 inches. At 50 yards there were 119 hits, or 2.43 per square. At 60 yards there were 80 hits or 1.33 per. At 70 yards there were only 28 hits and .57 per.

The other heavy load in 3-inch cases contained, by count, 153 pellets of No. 2c. This load spread into a 15½-inch circle at 20 yards. At 40 yards there were 84 hits (54.9%) on the target, or 1.71 hits per four-inch square. The spread was 37 inches. At 50 yards there were 66 hits, or 1.35 per square. At 60 yards there were 41 hits or .836 per. At 70 yards there were 25 hits, or .51 per. Note that at the longest distance we had practically as many hits with No. 2 shot as we had obtained with No. 4 shot at 70 yards. However, with No. 4 shot we had about as many hits at 60 yards as we had obtained at 40 yards with No. 2 shot.

The heavy load of No. 4c fell off from 67.94% to 56.95%, or about 11% in traveling the 10 yards between 40 and 50 yards. In the next equal interval it fell off about 19% more, or to 38.3% hits at 60 yards. Finally it dropped to only 13.4% at 70 yards, a 10-yard loss of 25%.

Our final step was to try a similar load in a 10 gauge. Our test gun was an Ithaca Field Grade, a recent acquisition fitted with new 32-inch barrels. The barrel-length, shot size and shot load were the same. However, the 10 gauge load was in 2⅞-inch cases and had a heavier charge of powder, equivalent of 4¾ drams. The shot charge, 1⅝ ounces of No. 4c, contained 226 pellets by count. At 20 yards the right barrel spread into a 12¼-inch circle (209 pellets in a 15-inch circle), and put 173 pellets (76.55%) in our target at 40 yards for 3.51 hits per four-inch square.

The left barrel which was chosen for our long-range test, did not do quite as well. At 20 yards it spread 12 x 14¼ inches, an area containing practically 11 four-inch squares, although it had 208 hits in a 15-inch circle. At 40 yards it put 145 pellets (64.16%) on our target, or 2.96 hits per four-inch square. At 50 yards there were 83 hits (36.72%), or 1.7 per square. At 60 yards there were 70 hits (30.97%), or 1.43 per. At 70 yards there were only 32 hits (14.2%) and .653 per. Note that the 10 gauge did only slightly better at 50 yards than the 60-yard performance of the 12 gauge. It fell off more than 29% between 40 and 50 yards, while in the next 10-yard interval it fell off less than 6%. These two may be regarded as flukes, the 17% loss in the final equal interval being more nearly normal.

We found we had to hold 7 inches high at 50 yards and about twice that at 60 yards. At 70 yards we held above the top of the paper or about two-feet above the center of impact. The observer, within view of the target area, could tell where the charge was going, and we adjusted our aim until we got the center portion of the patterns on the paper. These heavy guns kicked back appreciably with these heavy loads, but they handled well and fast enough on flying targets. At any rate there were no misses.

With No. 4c shot as the minimum size, these heavy loads seem to have sufficient penetration at long range. When these high-velocity 10-gauge loads first appeared, in the late 'twenties, I tried them on my own range up to 100 yards. At that distance (gridiron length) 1⅝ ounces of No. 4c completely perforated the glazed-paper pages of monthly magazines current at the time. No. 2c with its higher remaining velocity would have shown even greater penetration at 100 yards. At the end of the first 40 yards it is 100 f.-s. faster than No. 6c and nearly 50 f.-s. ahead of No. 4c.

A few years earlier, I had tried 1¼ ounces of BB shot on a 24-inch square, getting only 5 pellets on at 100 yards and 13 on the target at 65 yards. Major Askins once tried a goose load on a 6 x 12-inch silhouette at 80 yards and his average number of hits on his paper goose was 5 pellets. The area of my 100-yard target was just eight times that of Askins' 80-yard target, and we should have needed 40 hits to equal his 5 hits. For effective hitting of ducks we should have had at least 64 hits, or 1 pellet for each three-inch square on our 24-inch target.

One serious defect of all shot-patterning on stationary targets is its elimination of all those pellet losses inescapable on flying targets for which shot-stringing is responsible. The stationary target catches every pellet which travels in line with it and at sufficient elevation. The bird catches only that part of the long column of shot which happens to be at the point of intersection as he sails through the shot string.

TRADE DOPE

P. O. Ackley has closed up his shop and joined the Service. For the time being his gunsmithing will be done for Uncle Sam, but mail addressed to him at Roseburg, Oregon, will be relayed to him. Some barrel stock remains on hand at Ackley's Shop which his assistant will rifle and chamber to order, until he in turn is called to the colors.

* * *

The Gun Re-Blu Co., of Tampa, Florida, is advertising fine custom gun bluing. The business is unique in that it is devoted exclusively to bluing and it caters to the needs of gun cranks.

* * *

Wright's Gun Shop, of Bloomsburg, Pa., has developed a system of smooth-boring worn-out .22-caliber pistols and revolvers for effective short-range shooting of .22 shot cartridges. Long-barreled .22 revolvers are best adapted for this purpose, but those having 6-inch barrels can also be used. With 8-inch H. & R. and H. & A. revolvers 8-inch patterns can be had at 20 feet. Kenneth A. Wright has regularly gotten 6-inch patterns at that range from his smooth-bored .22 caliber S.-S. pistols, for which he makes interchangeable barrels in Stevens make. He has been furnishing effective smooth-bored shot pistols and revolvers in .45 caliber for several years.

* * *

Sectional Density. In the January (1942) issue of the RIFLEMAN, you give a formula for finding the directional density of bullets along with the sectional density of various bullets, weights and calibers.

The formula W/d^2 I believe is to be worked thus: the weight divided by diameter squared.

I have tried to work it out that way, and by no form of imagination can I get the answers corresponding to the ones given for different bullets in the AMERICAN RIFLEMAN. —R. C.

Answer: I have your letter of March 23 and note your trouble with obtaining sectional density. In order to find the area of any circular area you multiply the diameter by itself (or the diameter squared), and then multiply it by the area factor which is .7854. Then in order to satisfy the formula W/d^2 for sectional density you divide this area in square inches into the bullet weight in pounds. I believe your trouble has arisen from the failure of transforming the weight of grains into pounds which is done by dividing the grain weight by 7000, as there are 7000 grains in one pound. I think if you will do this your answer will come out right.

* * *

Gravity Drop. A group of we boys were discussing a certain law of gravity. At one point in the discussion the question arose as to whether a bullet fired from a gun parallel to the ground, and assuming that conditions were perfect, would strike the ground at the same time one would if dropped from the hand. Most of us were agreed that it would. However, there was one whom we could not convince, so we decided to write for an opinion from an authority on arms and ammunition.

Will you therefore be gracious enough to reply with an explanation that will convince this "Doubting Thomas" that Newton's law of gravity is still applicable in these times, and that a bullet fired from a rifle and one dropped from the hand will strike the ground at the same time?—SGT. H. F.

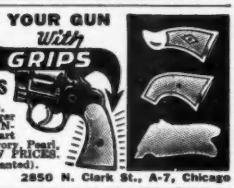
Answer: I have your letter, and will say that the acceleration given any free object by the attraction of gravity (a constant pull) is a constant, and in the same locality, the acceleration is at a constant velocity rate. At normal temperatures of about 70° and at sea level this is 32.2 feet per second, or about 32 f.-s. Thus, in 1 second of flight, the ultimate velocity of fall is 32 feet per second, making the average rate 16 feet per second which, in turn, is the acceleration at the end of ½ second. It does not matter whether an object is dropped straight down, at an angle, or propelled horizontally and given a forward speed. In a given time it will fall exactly as far through the attraction of gravity regardless of its direction of travel. You might note an exception in the case of a bullet fired vertically, but this is not a fair one, because the gravity exerts a downward pull on it just the same, although it will not begin to fall until it has lost its upward velocity imparted by superior opposing forces.

When a rifle bullet is fired horizontally its velocity will carry it forward while it is falling to the ground and that results in its curved trajectory or path of flight. If you were shooting on a flat terrain, and the line of departure is parallel with that horizontally flat stretch of earth or water, a bullet would reach the ground in the same time as it would when dropped from the muzzle and no matter whether the velocity of the bullet were 100 f.-s., 500 f.-s., or 5000 f.-s. In the latter case it would travel forward much farther while falling to the ground in the same time interval for all three.

IDEAL SIDE LEVER SAFETY

Designed for 70 Win. Operates freely. Easily installed. Complete instructions, $2.50 postpaid or installed in bolt. Available out of stock. Folder. Due to war contracts only a few TILDEN MOUNTS now available. Write TILDEN MFG. CO., 2750 N. Speer Blvd., Denver, Colo.

EQUIP YOUR GUN with FRANZITE GRIPS IN RICH COLORS



For Colt, Smith & Wesson, Hi-Standard, Ortgies, Luger and Mausers. TOUGH, UNBREAKABLE. Rich, smart Colors, neatly checked—Ivory, Pearl, Walnut, Onyx, etc. LOW PRICES. Free Catalog. (Dealers wanted).
SPORTS, INC., (mfrs.) 2850 N. Clark St., A-7, Chicago

You can put this space to work *for you* regularly, at a very reasonable cost —only $11.90 per month for 12 consecutive insertions. Rates are slightly higher on an every-other-month schedule, or for single insertions. The circulation of THE AMERICAN RIFLEMAN is now over 65,000 copies monthly —and increasing steadily. We are producing splendid results for dozens of advertisers who use this size space right along. Send us "copy" instructions now, for the next issue.

A One-Inch Display "Ad"

The extreme precision of South Bend Lathes makes easy work of the difficult, close-tolerance jobs. This dependable, accurate performance is traceable to features that include superfinished spindle bearings, rigid construction, positive-action controls, and quality manufacture of all parts.

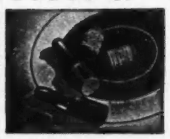
Made in five sizes: 9" to 16" swing, 3' to 12' bed lengths, in toolroom or manufacturing types, with many practical attachments.

Write for catalog and name of nearest dealer.

SOUTH BEND LATHE WORKS
Lathe Builders for 35 Years
Dept. 233, South Bend, Indiana, U.S.A.

SOUTH BEND *Precision* LATHES

TARG-O-TABS



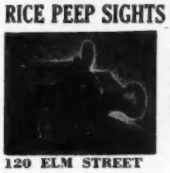
The New Target Paster, Faster. No sticky fingers. No sticking together. No waste. Set of two handles with 250 white and 250 black posters, 50¢. Reloads, 50¢ per thousand.
NATIONAL LITHO CO.
1255-25th St., N. W. Washington, D. C.

Improved Trigger Face

It is agreed by Masters, Experts, Sharpshooters, Marksmen that this attachment does improve trigger pull. Made of finest material. Blued. See your dealer or order direct. For Rifles, Pistols, Automatics. Handguns—$1.50; Rifles—$1.00. Dealers write for information. Catalogues available now.
ALLISON TARR, Gunsmith
R. F. D. No. 1 Verona, Pa.

SMITH & WESSON

RICE PEEP SIGHTS FOR KRAG AND ENFIELD



rifles. Windage and elevation. Anyone can mount. Price $1.50. Sporter Butt Plates, 60 cents. Grip Caps, 35 cents. Krag Barrel Receiver Fillets, 65 cents. Spring Barrel Bands, 60 cents. Satisfaction or money refunded.
LEROY RICE
120 ELM STREET WELLINGTON, OHIO

30 cal. Gov't Bullets, Metal Case

150 gr. $12.50—1000; lots of 5000, $10.00 per 1000; less than 500, 1½ cents each. 172 gr. Boattail $17.50—1000; lots of 5000, $15.00 per 1000; less than 500, 2 cents each. F.O.B. Penna. No packing charge.
Flaig's Hunters Lodge
MILLVALE, PA.

THE ARMS CHEST

The Arms Chest is an open market trading post where manufacturers, distributors, purveyors of professional services, and our own readers may cry their wares to fellow sportsmen at a modest cost. Returns are uniformly excellent—scores of advertisers have reported truly phenomenal results.

Advertisements are accepted from annual and life members of the National Rifle Association, *for personal transactions exclusively*, at 8¢ per word INCLUDING NAME AND ADDRESS, minimum charge $1.20. For all *commercial* advertisements the rate is 10¢ per word INCLUDING NAME AND ADDRESS, minimum charge $1.50.

Groups of figures are computed as one word. Spell out all descriptive words; abbreviations may lead to serious misunderstandings and thus impair the effectiveness of your ad. Box number or blind ads will not be accepted. Please give your *complete* name and address, so as to facilitate the proper issuance of money-orders or checks, and to insure the prompt delivery of all mail or telegraphic replies. All advertisements *must* be accompanied by cash. Final closing date is the 5th of the preceding month. *Please print all advertisements plainly*—we cannot be responsible for errors due to illegible writing.

In describing the *condition* of guns advertised these standard phrases must be used: *Perfect* means factory condition. *Excellent* means new condition, implying negligible amount of use. *Very good* means practically new condition, implying little use, resulting in no appreciable bore wear and only minor surface scratches or wear. *Good* means moderate use with some finish worn off, only moderate bore wear with no pits and nothing worse than a little roughness in the bore. *Fair* means reasonably hard service, reasonable wear inside, nothing worse than minor pits in the bore, implying the gun is sufficiently accurate for hunting. *Poor* means marred appearance and pitted or badly worn bore.

MEMBERS EXCHANGE

A quick, inexpensive medium for disposing of guns and accessories no longer needed, or for the purchase of more suitable similar items. We urgently request that a full description be given of every article offered, and its *condition* (see complete instructions above), for transactions of this sort must be based entirely on good faith and mutual satisfaction. Deliberate misrepresentation will of course result in immediate expulsion from N. R. A. membership.

Purchasers who wish to examine, before acceptance, guns or equipment purchased thru these advertisements should request shipment by express, C.O.D., *with examination privileges.*

FOR SALE

THE REVOLVER TIMING RECORD. A 10 inch RCA-Victor phonograph Record. Practice Timed and Rapid-Fire anywhere, BY YOURSELF. Nothing to watch—just listen. For "dry" shooting, basement and outdoor ranges. One side 10 second timing, other side 20 second timing. Plays on any phonograph. $1.50 postpaid. The Original Sight-Exchange, Box J, Paoli, Penna. 1-43

L. C. SMITH SPECIALTY TRAP SINGLE 34 V-R Monte Carlo stock 2⅛ x 1¼ x 1¼ good, $75.00. B. H. Smith, Severn, Md. 7-42

SALE: G.H.E. PARKER, PERFECT, SINGLE trigger. 26" barrels, right improved cylinder, left modified. Fancy walnut stock, skeleton butt plate. Stock, 14¼, 1⅝, 2¼. $150.00 cash, including cowhide case. James E. White, 518 E. Mechanic St., Jackson, Michigan. 7-42

.257 WINCHESTER 70, 3-30 SCOPE, LEE centre dot reticule, new loading tool, scales, 95 factory; 260 primers, 453 bullets, 75 rounds; crank condition, $95.00. Korelle-Reflex; Camp Perry. WANT—6 x 24 Hensoldt; N.M. .45, Hammerless Ballard. Stamp. Roy Hoard, 2416 N. Mesa, El Paso, Texas. 7-42

SPECIAL PRICES! LYMAN, REDFIELD, King, Marble Sights. H. & R. Model 922, $13.45, Winchester M/94 Carbines, $41.00 prepaid. Pachmayr Revolver Grips, $1.50. A-1 Gov't Slings, 50¢. Swivels, 35¢. Argus Spotting Scopes, $62.50. Heiser Leather Hip Holsters, $1.95. Free! Gun Catalog. Warshal's, First-Madison-BB, Seattle, Wash. 7-42

8MM. MAUSER BISHOP STOCK WITH 175 OLD and 52 new factory loads, $35.00; Winchester 94 25-35 Carbine, good, $20.00; Winchester 86 45-70, good, $20.00; Winchester 12 ga. single, very good, $10.00; Colt 38 Special, good, $25.00; 45 Colt Automatic, good, blue fair, $25.00; Winchester Model 12, 12 ga., excellent in, receiver worn, $35.00; Rolleicord f3.5, . .excellent, $75.00. No trades, joining army. H. V. Crum, Fort Yates, No. Dak. 7-42

MOREAU PARIS BINOCULARS. 8 X 25 POWER. Case and straps. A-1 condition. $30.00. H. A. Hund, 429 No. Front St., Mankato, Minn. 7-42

MODERN GUNSMITH, NEW, HOWE, $10.00. New, nickel, S. & W. Hammerless, 2 inch, new Heiser holster, $30.00. Krag Carbine, new condition as issued except swivels and Springfield buttplate added. $25.00. Two new Mod. '17, unfinished Sporters, one, 22 inch, Lyman rear, P. G. and cheekpiece, $27.00; one, 26 inch, Pacific rear, original stock, $18.00. Vion 40X Scope, $15.00. New Machete, 20 inch, without scabbard, $1.75. WANT—Winchester Model '05, S.L., good or better condition. Arthur E. Johnson, 328 Farragut Street, Washington, D. C. 7-42

SHOTGUNS: LARGE ASSORTMENT OF high-grade imported and domestic. Write for descriptive list; or when in New York, call on us. Galef & Son, 75 Chambers Street, New York. 7-42

COLT SUPER 38 AUTOMATIC, EXCELLENT TO perfect in an out, $49.50. Colt 38 Detective Special, excellent in and out, $39.00. Money order. Sam Broomhall, Ludlow Street, Hamilton, Ohio. 7-42

SELL: 38 SPECIAL COLT'S OFFICIAL POLICE, perfect, complete reloading outfit, components. Write for full details. WANT—Pay $47.50 for .22 Cal. Colt's Officers Model, must be perfect; Winchester 52 Sporter. Joe Desaye, Turner, Montana. 7-42

FIREARMS FOR COLLECTORS. PRINTED illustrative catalog #7, 1,100 items, $1.00. Large descriptive list 20¢. Far West Hobby Shop, 406 Clement, San Francisco, Calif. 9-42

SELL: PERFECT WINCHESTER 70 BULL GUN, 300 Magnum, 160 handloads, 100 cases, $97.00. New condition. As issued N. M., Perfect, slight barrel wear, #1329999. $50.00. Early Remington 37, perfect, accurate, $45.00. Springfield M-1 22, very good, $45.00. 52 H. B., 48 rear, 17 front, not late model, accurate, $42.00. 30-06 ammo—30 Western handloads, 130 38 issue, 60 N. M. 39; 170 1940 M-2; 240 loads of 48½ 1185 and 150 gr. All $25.00. 1000 F.A. 173 gr. bullets, $25.00. Dean Shumway, Superior, Wisconsin. 7-42

BROWNING 25 AUTO, BARREL FAIR, REST good, new holster, over 150 rounds ammunition, $15.00. Iver Johnson D. A. Revolver, finish fair, rest good, holster, $6.00. Winchester 1903 Rifle, good in, fair out, $15.00. Walnut Hill 414 Heavy Target .22, 4X scope, fair, barrel good, $15.00. Winchester Single Bolt Action .22, brand new, $10.00. Steelbilt .410 Single, brand new, $10.00. American Optical 8 x 26 Prism Binoculars, case, straps, brand new, $40.00. 200 rounds .32-20, *not* hi-speed, $8.00. WANT—.45 Colt ammunition. Stamp please. Wm. M. Abbott, Box 185, Wilton, N. H. 7-42

ANTIQUE AND USED FIREARMS. SEND 5¢ for List. H. A. Brand, 1008 Ingalls Bldg., Cincinnati, Ohio. 7-42

WINCHESTER 70, 30-06, REDFIELD REAR, detachable swivels, sling, oil finished stock, $70.00. O. M. 22, Sanderson stock, $42.00. Winchester 75 Target, oil finished, sling, $35.00. All excellent or better. Model 37 Ithaca 12 Gauge, $45.00. Winchester 94 Carbine, 30-30, Pacific rear, swivels, sling, excellent in, blueing worn out, $35.00. R. O. Green, Gen. Del., Berwyn, Md. 7-42

MATCH TARGET WOODSMAN, EXCELLENT to perfect, $60.00. First money order. Leon Fisher, Presidio, Texas. 7-42

SEVERAL FINE HAMMER SHOTGUNS, highly decorated Kentuckies. A nice lot of Military items—Pistols and Revolvers. 10¢ brings 24 page catalog. T. J. Cooper, R#7, Meadville, Penna. 7-42

REMINGTON O. & U., 32TC, 12 GA., VENTIlated rib, 32 in. full choke barrels, custom stock, excellent plus, $140.00. Edson Sessions, 120 So. La Salle St., Chicago, Illinois. 7-42

HISTORIC PISTOLS: GEO. III FLINTlock long Navy pistols with Belt hooks from the Castle Collection, sold for the British Government. Used in Revolutionary War and at Trafalgar. 20" long, brass trimmed, bright and clean, extremely decorative, and in shooting order. While they last, $19.50 each. Kimball Arms Company, 20 Cambridge Road, Woburn, Mass. tf

AMERICAN RIFLEMAN MAGAZINES FOR 1935-'36 and '39 and '40. Excellent. $5.00. I. M. Lindgren, Amery, Wisconsin. 7-42

ABERCROMBIE & FITCH 12 GA. O. & U. Miller S.S.T., M&F, 30", perfect, $175.00. Winchester 70 250-3000, Lyman 48, Winchester 5X scope, perfect, $80.00. Remington 141, 35 cal. Pump, perfect, $65.00. Money orders only. Money back guarantee. Alex Pandolfi, Great Kills, Staten Island, N. Y. C. 7-42

KILBOURN-HORNET, DEADLY ON chucks and crows. 3,000 F.P.S. velocity with 45 gr. bullets, 2,900 F.P.S. with 50 gr. Your Hornet rechambered, $5.00. Magazines altered for long bullets. Winchester, Savage, $2.00. Lysle D. Kilbourn, New Hartford, N. Y. tf

COLT .45, COMMERCIAL MODEL. PERFECT except small scratch on slide. 3 extra clips, 1 in leather holder. First money order $45.00. Big Game Rifle: 300 H. & H. Magnum, Enfield action, chambered by W. F. Main, walnut stock, pistol grip, cheekpiece, white-line recoil pad, Whelen sling, carved oak leaf design. Weaver 330-C 'scope, post and crosshair, Redfield Jr. mount. All new. $145.00 cash or trade for Revere Turret 8mm in perfect condition. J. C. Robison, Jr., 1020 So. 10th East, Salt Lake City, Utah. 7-42

THE ORIGINAL SIGHT-EXCHANGE, BOX J, Paoli, Penna. Gun Sight Specialties. Mail us your old sights and tell us what you want. 7-42

WINCHESTER MODEL 54 CARBINE .270 CAL., Lyman 438 scope, sling strap, recoil pad and case, excellent, $50.00. Kenneth Larsen, Grantsburg, Wisc. 7-42

COLT 45 AUTO, COMMERCIAL MODEL, COMplete target job by "King", excellent, 100 late F. A. cartridges, 150 hand loads, extra barrel, magazine, cleaning rod, and grips. First $62.50 takes outfit. Joseph Rupp, 421 College Ave., Lancaster, Penna. 7-42

THE MUZZLE-LOADING CAP LOCK Rifle. Splendidly illustrated, buckram binding, $4.85. N. H. Roberts, Author, Goffstown, N. H. 7-42

R.S.V.P.

May we ask your cooperation?

Obviously an ad in the Arms Chest does not carry quite the formal obligations of an engraved social invitation!

But nonetheless, when a member places an ad in this section he should accept the implied responsibility of giving a prompt and courteous reply to all those fellow-members who have, in good faith, offered their money or cherished belongings to fulfill the advertiser's more urgent needs.

Sure, it takes time and postage! But aren't you just a wee bit offended if an advertiser neglects *your* offer?

Final closing date is July 6th for all classified copy to appear in the August issue. See complete instructions, above.

SPRINGFIELD N.M. SPORTING STOCK 48. Very good, very accurate, $55.00. Savage 99 25-35, Lyman rear, 20 inch barrel. Very good, $37.50. Ansley H. Fox A ejector 12-28 M and F. Almost very good, $55.00. G. B. Kneass, Berwyn, Pa. 7-42

FACTORY SECONDS RECOIL PADS $1.00, postpaid. Complete with screws for attaching. You save $2.25. Send outline of gun butt. Prompt delivery and satisfaction guaranteed. Incor Mfg. Co., Terminal Bldg., Youngstown, Ohio. tf

MARLIN 90, 22/410 O. & U., PERFECT, $35.00. Marlin 39 with extras, $25.00, excellent. Büchel Tell Pistol, excellent, $90.00. Winchester 10 Gauge Lever, factory rebuilt, $35.00. Binoculars, Zeiss 7 x 50 "Binoctar", excellent, $150.00; Zeiss Contaflex, F-2 Sonnar, eveready case, perfect, $190.00. G. Bennett, Box 81, Hartford, Wisc. 7-42

BAKER HAMMERLESS DOUBLE 12 SHOTgun, 30", excellent out, V.G. in, $25.00; Myres quickdraw two gun belt rig for Detective Specials, $10.00. WANT—Will pay highest price for S. & W. (38Sp.) M&P 4", perfect. Ben Vaupel, Mt. Vernon, Indiana. 7-42

FOR SALE: EXCELLENT WINCHESTER 22 L.R. S.S. Musket tapped for scope blocks, $30.00. Winchester 22 L.R. Repeater 1906, $15.00. Remington 22 Repeater Model 12, $15.00. Savage 99 Takedown 22 Hi-Power, $40.00. Remington Bolt Action 22, smooth bore, $6.00. Following good plus: Krag as issued, $25.00; Springfield 45-70 Carbine, $8.00. Fair Winchester 1906 22 Rifle, $10.00. Major L. R. Talbot, Westpoint, N. Y. 7-42

FROM MY OWN PRIVATE GUN CABINET: Unfired National Match Springfield, made 1938, Star Gauged, C stock. Best offer. No replies. C. E. Purdie, Gopher Shooter's Supply, Faribault, Minn. 7-42

SELL: NEW WINCHESTER 70 STOCK, $10.00; Another Super Grade, fair, $8.00. B. & M. #26, .44 Special, seater, die, $10.00. 12 Ga. R.B.S. .32 chambers $3.00. 75, 300 Mag. empties, $2.75. WANT—B. S. A. action or receiver. Ray Smith, Route 1, Selinsgrove, Penna. 7-42

20 GAUGE REMINGTON AUTOMATIC SPORTSman and leather case, excellent, $60.00. 12 Gauge Winchester Model 97, excellent, $32.00. 86 copies of Rifleman from April 1935 to date, $6.25. 51 copies of Rifleman, various months from 1930 to 1942, 25 cents each. J. F. Cline, 213 N.F. St., Madera, Calif. 7-42

9MM AMERICAN EAGLE LUGER. VERY GOOD to excellent. Best offer over $40.00 takes. 32 shot 9mm magazine. Will accept excellent stop-watch part payment. W. K. McDaniel, Darlington, Wisconsin. 7-42

OFFERING COLLECTION OF HIGH grade cased double muzzle loading shot guns by famous makers. Also listing some desirable flint and percussion rifles in shooting order. Specify which list wanted. Stamp please. Kimball Arms Company, Woburn, Mass. tf

FOR SALE: ITHACA 20 GA. DOUBLE, NO. 2 grade, recoil pad and ivory sights, very good, price $50.00. Also Correspondence Course in Salesmanship. B. L. Thompson, Kenton, Ohio. 7-42

.30-06 SEDGLEY SPRINGFIELD SPORTER, beautifully engraved. Circassian walnut stock, fine checkering, Buffalo horn fore-end tip, trap butt, quick detachable swivels, push button front sight cover release, speedlock, safety firing pin, honed action, fired for sighting only. Cost to duplicate about $450.00, take $300.00. Accept as part payment, perfect .357 S.&W. Magnum, and model .70-'06. Stamp please. Arthur H. Venhaus, 1359 No. 57th St., Milwaukee, Wisconsin. 7-42

WINCHESTER M-94 CARBINE .30-30, NEW, $40.00. Barrels only—M70 .375 H. & H. with front sight and hood, new, $20.00: Enfield barrel chambered for .30 Newton, new, $8.00. Dr. W. H. Otis, Cook County Hospital, Chicago, Ill. 7-42

.38 COLT, OFFICERS MODEL, HEAVY BARREL, excellent, $55.00. .45 Colt Gov't. Model, excellent, Heiser holster $45.00. Clarence Gott, 45 E. Delos St. St. Paul, Minn. 7-42

WINCHESTER 451, EXCELLENT, $55.00. ANother better than V.G., $50.00. Winchester 95 Model 30-40, V.G., $30.00. L. C. Smith Single Barrel Trap Gun, Specialty grade, excellent, $60.00. Ithaca Single Barrel Trap Gun, V.G., $60.00. Model 12 Winchester Skeet, ventilated rib, Poly-Choke, excellent, $60.00. 300 Savage, excellent, $60.00. 45 Colt Automatic, chrome, V. G., $35.00. 7.65 Luger, V.G., $35.00. 44-40 Colt Frontier, 7½" barrel, pearl handles, excellent, spring shoulder holster, $55.00. 38 Army Special, V.G., $35.00. 44-40 Bisley, V.G., $30.00. L. T. Gibbs, 716 Kress Bldg., Houston, Texas. 7-42

LARGE ILLUSTRATED MEDAL-AWARD Catalog, 10¢. Bargain Fishing Tackle and Archery Catalog Free. Weaver #330 Scope, Type "T" Mounts $27.35. Type "B" Mounts, $31.75. 10- Shooting Coats. Warshal's, First-Madison-BB, Seattle, Wash. 7-42

GUNS FOR SALE

MOSSBERG Rifle, Model 46B, 22 caliber	$16.95
MOSSBERG Rifle, Model 42M, 22 caliber	16.80
MOSSBERG Rifle, Model 51M, 22 caliber	22.50
WINCHESTER Rifle, Model 55, 218 Bee Repeater	56.85
WINCHESTER Rifle, Model 70, 250 Savage 7 m/m	78.45
WINCHESTER Rifle, Model 71, 348 caliber	65.15
WIN. Rifle, Model 94, 25/35, 30 or 32 cal.	41.00
REMINGTON Rifle, Model 550A, 22 Automatic	24.10
REMINGTON Rifle, Model 81A, 300 Savage	88.10
SAVAGE Rifle, Model 99EG, 250 and 300 cal.	61.75

THE FOLLOWING AMMUNITION PRICED PER HUNDRED

32 Remington rimless, metal case	3.25
22 Remington Automatic for Model 16A	.55
25/20 Winchester Repeater, black powder	2.40
25/20 Winchester S.S. black powder Win.	2.00
9 m/m Luger, metal case or mush. Win.	4.85
30-03 Gov't for 95 Win., etc. non-corrosive S. P.	6.75
303 Savage metal case bullet, Stayniess	4.50
30 Remington metal case rimless Kleanbore	4.00
303 British Mark VII Pointed	5.50
32/20 Winchester Repeater, Western Nubiend	2.90
32/40 Winchester Black Powder Lead	4.25
7 m/m Mauser, 175 gr. metal case bullet Win.	5.50
38 Short rimfire Nubiend powder	1.40
38/40 Winchester Rep. Western Nubiend Lead	3.50
44 S&W Russian black powder	3.60
41 Long Colt Western Nubiend	3.20
45 Webley black powder, Lead, Winchester	3.60

FREE CATALOG. Stamp Please for Each List of Ammunition—Used Rifles—Used Shotguns

HUDSON SPORTING GOODS CO.
R-52 Warren St. *($2 Deposit C.O.D.'s)* **New York**

HENSOLDT DIALYT MONOCULARS 6X to 25X

RIFLE SCOPES: Ask for list.

We buy, repair, Hensoldt Binoculars and Scopes

WRITE FOR FOLDER

M. HENSOLDT & SONS, INC. 258 Broadway New York, N.Y.

GENUINE BELGIAN BROWNING OVER & Under "Lightning Model", 12-26", Skeet boring, automatic ejectors, ventilated rib, selective single-trigger, Hawkins recoil pad, excellent, $95.00. Ithaca No. 4 Ejector, 16-28", skeet boring, recoil pad, gold triggers, gold name plate in stock, beautifully figured stock, excellent, $90.00. 7mm Spanish Mauser remodeled by Flaig Bros., $69.50. DeLuxe .32-40 Winchester '94, Takedown, altered to 20 inch barrel by Sedgley, butt walnut pistol grip stock, checkered, 40 Peters Rustless Cartridges, $39.50. Will describe fully. Russell Elder, Griffin, Ga. 7-42

M70-300 MAG. SPTR.; REM. .30-06; REM. M14 35; Win. 401; Super 38. Ted Hildemann, Frenchtown, Mont. 7-42

LATEST COLT S.A.A. 45, 5½", PEARL Grips, fired 12, $45.00. Remington 11A Automatic 12, 30", full, perfect, fired 10, $65.00. 12 Gauge Ammunition: 1 case Shurshot Remington #6 Ch., $18.00; 100 shells same, #7½ Ch., $3.25; 275 Nitro-Express #4 & #6 Ch., $11.50; 100 Super X #2 Ch., $4.25; 100 Super X O-Buck, $4.50; 195 Super X Rifled Slugs, $12.50. Ben Vaupel, Mt. Vernon, Indiana. 7-42

GENUINE D.C.M. SPRINGFIELD SPORTER Noske Scope Base, very good, $65.00. Colt 45 Auto Commercial, good, $30.00; Another Gov't., $25.00. Mauser Pocket 32, fair, $15.00. Mauser Erfurt Kar 98, fair, $22.50. Luger 9mm and holster, excellent, $45.00. Winchester 1886 45-70, excellent, $22.50. Send $3.00 for C.O.D. Exam. WANT—Borchardt, Martini, Farquharson. R. S. Cook, Alpena, S. D. 7-42

GOOD AS NEW GUNS: REMINGTON MODEL 81, cal. .30 Savage, Lyman micrometer rear, King gold bead front, sling, $97.00. Mauser Single Shot, cal. .22 L.R., '98 action, ramp sight, 25 to 250 meters, sling, $60.00. Winchester Model '97 full, 28 inch, recoil pad, 12 ga., $45.00. Used Guns: Winchester Model '95, cal. .30-40, 28 inch, excellent in and outside, $55.00. Winchester Model '95, cal. 30-40, 22 inch, very good, $50.00. (Above two have Lyman 38 rear, King gold gead front.) Remington Model 141 Cal. 35 Rem., Marble tang rear, recoil pad, excellent, $55.00. Steyr Mannlicher Pistol, 8mm, excellent collectors item, $35.00. Two Krag Carbines, 30-40 cal. as issued, very good, $30.00 each. Winchester Model '95 Carbine, 30-30, excellent inside, fair outside, $30.00. Dale Lusk, 245 Market St., San Francisco, Calif. 7-42

MUZZLELOADING REVOLVERS. COLT and Remington 44 and 36 caliber revolvers in fine shooting order, also moulds. Stamp for list. Kimball Arms Company, Box 257, Woburn, Mass. tf

● The Weaver organization is proud of the fact that the things they are making for Uncle Sam are a direct contribution to better shooting. For better shooting is the fundamental on which this business was founded. Today, while much of our plant is devoted to war, there are still *Weaver* Scopes and Chokes for you—which means better shooting for you, too.

The WEAVER SCOPE

There are Weaver Scopes for all rifles and every kind of shooting from target to big game. All are fast, sturdy accurate; all have clear, bright optical systems. Internal adjustments for windage and elevation. See the *Weaver* at your dealer's today.

Illustrated:
Model 330 with "B" Mount, $36.30 federal tax included

WEAVER CHOKE

A Weaver-Choke on your favorite shotgun brings it up to date and gives you the advantage of deadlier patterns at all ranges. Six interchangeable choke tubes to choose from; available in 12, 16, and 20 gauge.

The Weaver-Choke complete with any two choke tubes

$9.75

Mail Coupon Today

W. R. Weaver Co., Dept. 1
El Paso, Texas

I'd like to have your literature. Please send me illustrated folders on:

*The Weaver Scope*_____

*The Weaver-Choke*_____

*Name*_____

*Address*_____

W.R.WEAVER CO. EL PASO, TEXAS

Big Bargain Offer

HERE IT IS — a full twelve months' subscription to Outdoorsman and your choice of any five of the popular Outdoorsman Handbook Series, all for only $2.00.

SAVE $1.20

Taking advantage of this offer will save you $1.20 from the single copy price of Outdoorsman and these books.

Fill out the coupon now and indicate the books you want. Enclose remittance of $2.00. All orders filled the same day they are received.

List of Books

1. Training the Coonhound
2. Hunting Wild Turkeys
3. The Quest for Trout
4. Money in Mink
5. Retriever Training
6. Whitetail Deer Hunting
7. Bird Dog Training Made Easy
8. Crow Shooting
9. Your Dog's Care
10. Bass Fishing Facts
11. Camp, Trail and Canoe
12. Quail and the Quail Dog
13. Practical Fox Trapping
14. Panfishing
15. Nutria Raising
16. Elementary Trapping

OUTDOORSMAN Book Dept., 919 N. Michigan Avenue, Chicago, Illinois

Enclosed is $2.00. Enter my subscription for one year and send the five books which I have checked above.

NAME .....

ADDRESS .....

This coupon is from the American Rifleman.

A WORLD-FAMOUS

Chicago Hotel

Distinguished visitors have made The Blackstone one of the World's most famous hotels. Beautiful appointments, quiet luxury, perfect service, excellent cuisine, sparkling entertainment.

A. S. KIRKEBY, *Managing Director*

The Blackstone

South Michigan Ave.

CHICAGO

WINCHESTER HORNET MODEL 54, EQUIPPED with Ziess Zeilklien cross hair scope. Western mounts, perfect, $125.00. Winchester Model 95 caliber 405, perfect, 51 cartridges, $50.00. Albert Darring, 2083 South 21st Ave., Birmingham, Ala. 7-42

M-52, STANDARD, LYMAN SIGHTS, VERY good condition, blueing worn on bolt handle and trigger guard, $40.00 plus shipping charges. Richard Leiterman, Chaumont, N. Y. 7-42

DID YOU EVER SHOOT A FLINTLOCK Pistol? The George III Flintlocks advertised on page 52 are in fine shooting order, and cheaply priced. Kimball Arms Company, Woburn, Mass. tf

STEVENS 32-35 #45 HEAVY ACTION, DOUBLE set triggers, 26" half octagon barrel, Swiss butt plate, Vernier tang sight. 18 boxes empty fired cases. Reloading tool. Excellent, $35.00. Winchester Hi-Wall 38-55, 30" half octagon #3 barrel, fancy walnut pistol grip stock, forearm, checkered, windgauge front, mid-range Vernier tang sights, reloading tool, mould, excellent, $37.50. Winchester Hi-Wall 45-70, 30" half octagon #3 barrel, single set trigger, Globe front, windage, elevation tang peep, reloading tool, mould, 22 boxes Winchester target cartridges, excellent, $45.00; with Winchester scope, offset mounts, $60.00. Winchester Hi-Wall 32-40, 30" half octagon #4 barrel without rear sight slot, Schuetzen double set triggers, pistol grip fancy walnut cheek piece stock, forearm checkered, Globe front, Pope tang peep, reloading tool, mould, bullet lubricator, adjustable bullet seater, shell resizing die, perfect in, excellent out, $55.00. Winchester Lo-Wall 22 Short, 26" octagon barrel, sporting sights, perfect in, very good out, $15.00. Winchester Lo-Wall 44-40, 28" half octagon barrel, fancy pistol grip walnut stock, forearm, checkered, single set trigger, combination front, graduated tang peep, reloading tool, mould, very good in, excellent out, $27.50. Sharps Side Hammer 44-90, 105 Creedmoor cartridge, 34" octagon barrel, checkered trigger, stock, forearm, butt plate, original Sharps, lots cartridges, perfect in, excellent out, $35.00. 2, issue Krags, bayonet, strap, sight cover, oil can, cleaning rod in stock, excellent, $30.00 each. New Original Ballard 30" octagon barrels, 40-85, $6.50, 38-55 with forearm, wood rod underneath, $9.00. Post office money orders only. Reloading tools, moulds, obsolete clean cartridges in quantity only. Rim fire, center fire longs, extra longs for Bullard, Frank Wesson, Evans, Ballard, Sharps, empty cases, factory patched, moulded bullets. State wants. List for stamp. All information answered. Norman A. Ghen, 1651 Washington Street, Denver, Colorado. 7-42

LARGE STOCK OF DEER RIFLES, S. S. Rifles, Shotguns, and Revolvers. Descriptive list, 10¢. T. J. Cooper, R#7, Meadville, Penna. 7-42

22 MAGNUM; NEW BARREL ON STEVENS 44½-54 Highest grade engraved action. Restocked, imported walnut. Cases, dies, loads, $75.00. James Grant, Van Wert, Ohio. 7-42

FOR SALE: S. & W. .32 HAND EJECTOR 4¼ nickel pearl stocks, excellent, $25.00. .380 Remington Automatic, good usable. $10.00. C. H. Burris, 7721 Colfax, Chicago, Ill. 7-42

SELL: .30-06 ENFIELD BULL GUN, $105.00; 70 Custom Varminter, $100.00. These are complete outfits including dies and large supply of primers and other components. Gardner Johnson, 1215 23rd, Willmette, Ill. 7-42

.38 S. & W. TARGET REVOLVERS. LATE 6 IN $40.00. Pre-War 6½ in., $40.00. .38 S. & W., M. & P., plain sights, $30.00. .22 Olympic Target, $25.00. Colt 32-20 P.P., 6 in., $30.00. .455 Bisley Target, 5½ in., $50.00. .45 Frontier, new, full nickeled 5½ in., $40.00. .44 S. & W., M. & P., 6½, blued, pearl, $40.00. Trap grade Winchester Mod. 11 Autoloader, 12 ga., like new, $75.00. Flaig Brothers Springfield Sporter, $75.00. Warren Baker, 5106 Liberty Ave., Pittsburgh, Pa. 7-42

380 COLT AUTO, ENGRAVED, FINE PEARL stock, $40.00. 7.63 Mauser, good, $30.00. 38 M. & P., S. & W., silver plated, $25.00. 45 Colt Auto, Army, perfect, $27.50. WANTED—S. & W. 357 Magnum. B. Ondrejkovic, 1813 Cuyler Ave., Berwyn, Ill. 7-42

SPECIAL SALE OF NEW AND USED shotguns and rifles. List ready. Stamp please. Kimball Arms Company, Woburn, Mass. tf

6" X 18" METAL SCREW CUTTING LATHE with gears and chuck and wood centers, ¼ motor, good. WANT—.22 O.M.T. or .38; Enfield; Krag, or Springfield Sporter, Win. 52, Targetspot, .330 Weaver—B or Red. mount, or 75 Sporter and scope. Also Win. 70-'06, 48 rear, 1" sling, perfect, $75.00. Win. 74, 22 Auto, checkered stock and sling, $20.00, excellent. Rem. Auto 12 ga., 28" full, good, with 200 shells, $40.00 or Hornet. Al Shelton, Rt. #2, Toppenish, Wash. 7-42

45 AUTO, ARCHED HOUSING, KING TARGET sights, perfect, holster, 150 cartridges, $57.50. Enfield, target stock, Redfield rear, excellent, $40.00. Colt 25 Auto, fair, $10.00. Savage 12 Ga. Auto, perfect, $57.50. Sears Ranger 12-30" full, excellent, $32.50. 1400 38sp. primers, 6-sticks lubricant, 2-cans each Bullseye, #6 pistol, 1000 sized—greased bullets, $21.00. 3 lbs. 1185, $4.50. 75 lb. Bullet Trap, $12.00. 9 x 12 Wall Tent, $14.00. Oak gun cabinet, $10.00. Good Krags: issued, $18.00, sporter, $22.50. Ernest Juola, Eveleth, Minn. 7-42

OIGEE GNOMET, 2½X HUNTING SCOPE, EXcellent, $15.00. Remington-Hepburn, 38-55 Schuetzen, 32", false muzzle, D.S.T., Lymans, good Stevens Pope barrel, rest fine, $20.00. 38 Colts Auto 6" Military, barrel worn, reliable, $15.00. 45 S. & W. Schofield 5½", rough but serviceable, cartridges, $7.50. 45-70 Sharps "Old Reliable" D.S., rough, serviceable, $10.00. 22 Crosman Air Rifle, good, $5.00. M.O. only. Loyd Swarthout, 1521 Washington, Boise, Idaho. 7-42

JEFFERY 280, Sporter Mauser action, 24" barrel, engraved, with 50 cartridges half split necks, rifle about excellent, $110.00. Hudson, R-52 Warren Street, New York. 7-42

FOR SALE: 630 30-06 CARTRIDGES, MIXTURE Peters 26, Remington 27, F.A. 33, N.M. 35, and N.M. 38, $30.00. Stevens 414, heavy barrel, Lyman 103 rear, Stevens front, good, $19.50. Spindler & Hoyer 8 x 24 Binoculars, case, good, $24.50. .224 Krag Pacific dies, approx. 125 cases. WANTED—.22 cal. Sisk bullets, 2-R Lovell and 25-20 SS cases, cartridges. Krag Carbine. .25 cal. bullet moulds. Remington 241 Rifle. Winchester 69A Rifle. 4X or 6X Fecker Scope. Dallas O. Burger, 602 E. Tujunga St., Burbank, Calif. 7-42

FOR SALE: EVINRUDE 1940 5.4 H.P. MOTOR. Good condition. $125.00. F. D. Hickok, 152 Summer Street, Bradford, Pa. 7-42

SPRINGFIELD STAR GAUGE 30-06. EXCELlent. Mann scope blocks. Lyman 48. Complete reloading tools. $50.00. Two Krag Carbines as issued. Army use only. N. Perry Sipprelle, 6 Beacon Street, Boston, Massachusetts. 7-42

SPECIAL PRICES: LYMAN, WEAVER, Scopes. New Bridge-Type Redfield Mount. Weaver Model 29S Scopes, $12.55. Stock Reloading Tools, Bullets, Primers, Cases, Powder. Free! Gun Catalog. Special! Gov't Oilers and Cleaners, 29¢. Warshal's, First-Madison-BB, Seattle, Wash. 7-42

EMBLEMS - BRASSARDS

Send for Price List and Sample

YOUR OWN DESIGN!

G. O. WOOD 124 Ontario St. Lynn, Mass.

.38 S. & W. 6½" MILITARY, NICKELED, like new, $28.00. .45 Colt Auto Gov't., $20.00, V.G. .44 Single Action Remington #14, $20.00, good. .32 I. J. 4", fair, $7.00. Smith Ideal 12, two sets barrels, ejectors, offer, V.G. 8x24 LaMont French Binoculars, $15.00, fair. Roy Vail, Warwick, N. Y. 7-42

LATE .06 AMMUNITION, 22 HORNETS. NEW Colt Woodsman, 4½" barrel, Murad grips, holster, $45.00 first wire ship express collect. WANTED—Shotguns. Paul Dehner, Burlington, Iowa. 7-42

FOR SALE: 32 A. C. P., EXCELLENT, EXTRA magazine, 150 cartridges, spring clip shoulder holster, $28.00. M31 Remington 20G., small scratch on stock, otherwise excellent, suede cloth case, 98 Super X cartridges, $40.00. 95 Winchester 28, Lyman 21 receiver, stock rough, otherwise good, $27.50. 86 Winchester 45-70, poor, $7.50. J. L. Lee, Three Creek, Idaho. 7-42

SALE: 1200 .30-06 M-1, 1936, AND 500 .30-06 F.A. blanks, $5.00 hundred. C. C. Flagg, 1417 Berwyn, Chicago, Ill. 7-42

10 X 32 DuMAURIER PRISM BINOCULARS, case, straps, all excellent, $49.50. 23D Savage Hornet, barrel very good, wood fair, $19.00. 21 jewel B. W. Raymond Elgin railroad watch, 12K, gold filled case, used 5 years, $39.50. No trades. Walter Metz, Miranda, So. Dak. 7-42

NEW ILLUSTRATED CATALOG. HUNdreds of items. Paterson Colts, Flintlocks, Rifles, Accessories. Antique edition, 50¢. James Serven, Santa Ana, Calif. 8-42

COLTS REVOLVERS: BISLEY .38-40, $23.00; Bisley .45, $23.00; Frontier .45, 7½", $25.00; Police Positive Target .22 W.R.F. 4", $22.50; all very good. Frontier .45, good, $20.00. Frontier .44-40, fair, $13.50. Police Positive .38 Special, 4", good, $20.00. .32-20 Sideswing Spanish, fair, $8.50. .22 H. & R. Single Action Sportsman, excellent, $25.00. Winchester 95 Carbine, .30-40, very good out, excellent in, $32.50. Winchester 94 Carbine .25-35, good, $22.50. Savage 99 .303, very good, $30.00. Remington 12 Ga. Automatic, 28", improved cylinder, very good plus, $37.50. Walter Price, 922 Rogers, Okmulgee, Oklahoma. 7-42

WINCHESTER STANDARD 52, MARBLE-GOSS, Vaver front, sling, perfect, $60.00. Harvey Manchester, 506 Pine, Providence, Rhode Island. 7-42

FOR SALE: MODEL 54 WINCHESTER, NEW barrel, with 29S Weaver Scope, $60.00. Without scope, $50.00. 12 x 42 LeMaire Prism Binoculars with case, $60.00. Model 99 .303 Savage, $48.00. All excellent. H. L. Bennett, 1022 So. State Ave., Freeport, Ill. 7-42

WINCHESTER 270, LYMAN 48, 100 CARtridges, excellent, $75.00. .30-06, Lyman 48, 60 cartridges, good, $60.00. 2 Colts, 22 O.M. and 38 Heavy Barrel. Pachmayrs. Very good. 200 cartridges. $80.00. Elbert Johnson, Wingdale, N. Y. 7-42

FOR SALE: M-2 SPRINGFIELD, EXCELlent. 52 Bull, excellent. Custom hand loads for 30-06, 300 H. & H., 220 Swift. Write. Frank Foster, 501 So. Lincoln, Denver, Colo. 7-42

"SUPER" GRADE MODEL 54 WINCHESTER .22 Hornet Rifle, complete with Lyman 48 rear sight, and Lyman 438 telescope with micrometer click adjustments, fitted at the Winchester factory. 200 Kleanbore Hornet Cartridges. Whole outfit in perfect factory condition, $100.00. Privilege of C.O.D. inspection, but $20.00 down. Arnold R. Wiley, 653 South Main Street, Columbus, Wisconsin. 7-42

45 COLT 1917 REVOLVER, BARREL SLIGHTLY rough, rest new condition, $37.50. Alfred Zumbrum, Berne, Indiana. 7-42

22 WOODSMAN 6½" GOOD, $25.00, VERY good, $35.00, excellent, $45.00. 25 Colt good, $15.00, excellent, $20.00. 32 Colt Automatic good, $20.00, very good, $25.00. 25 Automatic Ortgie good, $15.00, nickel, excellent, $20.00. 32 Ortgie, good, $15.00. 32 Savage Automatic, very good, $20.00. 32 German Automatic Stock excellent $20.00. 32 Automatic Mauser, perfect, $35.00. 32 French Automatic Unis, good, $15.00. 32 Colt Revolver D.A. 6", good, $20.00. 32 Police Positive 4", excellent, $35.00. "Ditto" pearl handles, fair, $30.00. 41 Colt D.A. 6", poor, $12.50. 32 Smith & Wesson 4¼" hand ejector, fair, $20.00. 22 High Standard 6¾" L.R. Model "B", perfect, $29.75, Model "A", perfect, $39.75. 30 Cal. Luger, good, $30.00. 9 MM Luger, good, $40.00. 32-20 Spanish 5" very good, $25.00. 22 H. & R. 6¼ trapper model small frame, good, $12.50. Special, perfect, $25.00. Sportsman, perfect, $35.00. 32 H. & R. American 2½ inch bbl., perfect, $12.50. Rudolph's Loan & Sales Co., Atchison, Kansas. 7-42

BEWARE!!!
of stocks almost as good. Champions use ● Sanderson's custom made pistol stocks— ● $6.00. Name gun for folder and patterns.
Lew Sanderson, 14887 Muirland, Detroit, Mich.

FINEST RIFLEMAN'S COAT *Money Can Buy!*

● This new 10-X Imperial Rifleman's coat is comfortable, cool, durable . . . with self-adjusting back tension, stabilized pulse beat control sling pad, and many other features. Also available in attractively styled models for ladies. Fully pictured and described in Free catalog. See your dealer or write us today.

10-X RIFLEMAN'S GLOVE. Correctly designed with right padding in right place. Wears like iron, but soft as a kitten. Won't shrink. Write for reasonable prices.

10-X MFG. CO. DES MOINES IOWA

There is a FECKER

TELESCOPIC SIGHT & SPOTTING SCOPE

for every purpose, and for every rifle. For the highest grade precision Telescope, *write for folder to:*

J. W. FECKER
2016 PERRYSVILLE AVENUE
PITTSBURGH, PA.

●

Telescopic Sights *Spotting Scopes*
Team Scopes

FOR SALE: 38 SPECIAL COLT; 2 REMINGTON .44 Percussions; 32 S. W. Hand Ejector; 330-C Weaver; 70-K Hornet; 440-C Weaver. WANT—K-22, Officers Model, Kit Gun. C. Nieset, Millersville, Ohio. 7-42

30-06 BLANK CARTRIDGES. FINE FOR patriotic or military organizations. $4.00 per 100. WANTED—Colt Officers Model .22, Colt 45 N.M. Automatic. Must be perfect. WANT—#111 or #1½ primers. Howard Landgrave, 3432 No. Sherman Dr., Indianapolis, Ind. 7-42

.45 COLT ARMY REVOLVER, REMODELED, 385 Kleanbores, about 100 empties, $35.00. Sporting magazines, cheap. Beautiful German Luger, write for details and price. A. R. Halley, 1721 Hildacrest, Huntington, W. Va. 7-42

MODEL 70, 220 SWIFT, WITH G. & H. BASE, $70.00. Factory new condition. R. T. Roush, Angola, Indiana. 7-42

LARGE STOCK OF FINE ANTIQUE American and European arms. Send 10¢ coin for 8th edition catalog. We do fine antique arms repairing. Can furnish springs and make missing parts. Moderate prices. Kimball Arms Company, Woburn, Mass. tf

BROWNING O. & U., LIGHTNING MODEL, 12 Ga., 26" Skeet, single trigger, ventilated rib, perfect, $125.00. 300 Cal. Savage, Model 99EG, never shot, 200 shells, $75.00. Wilbur Maltby, 4310 Jefferson, Hyattsville, Maryland. 7-42

LATER LETTER FROM SOUTHWEST PACIFIC (?) says, "sell the others". Mauser .30-06, custom built, 24 in., double set triggers, Bishop stock, Lyman 34, band front, blue slightly worn, otherwise excellent, $67.50. Savage '99 22 H.P. solid frame, heavy barrel, excellent in, good out, Lyman peep, Bond straight line tool, 60 empties, 20 Kleanbores, $35.00. Savage 219 Hornet, excellent in, fair out, 350 ctgs., 150 empties, 400 22 W.C.F. ctgs., $27.50. Winchester '92 25-20, 24 in. oct., good, $15.00. Remington Bolt Repeater, tubular magazine, excellent in, fair out, and cheap Ward scope, $14.00. L. C. Smith Double Hammerless ejector, 30 in. armor steel, full choke, fair, 100 Federal Monark, 6 Ch., $25.00. F. A. Baker, Donnelly, Minn. 7-42

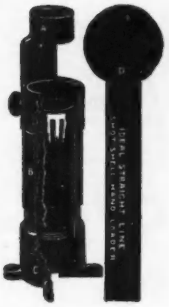
MODEL 70 R-2, 5 SHOT, WITH FECKER 10" small game, perfect, $95.00. Model 75 Target, perfect, $30.00. Skeet Model Ithaca Field 20 Ga. 26", excellent, $95.00. Write for details. Ross Sherman, Dryden, N. Y. 7-42

Accurate Loads

produced by

IDEAL TOOLS

Rifle, Revolver
Pistols, Shotshells



At left—Ideal Straight-line Hand Loader for 10 ga. to 410 ga. shotshells (except 28 ga.) **$4.00.** Other tools for shell reloading described in Hand Book.

You can reload the .22 Hornet jacketed bullet. Only necessary tool is No. 3 and some means of weighing the powder. For a little better job, add Muzzle Resizer, **$1.00**, and Shell Expanding Chamber, **$1.75.**

Lubricator & Sizer No. 1, $10.

NEW IDEAL HAND BOOK
No. 34, Second Edition.
160 pp., 50¢
Ideal Booklet, free.

THE LYMAN GUN SIGHT CORP.
90-T West St. Middlefield, Conn.

SHOOTING EQUIPMENT

Still Available, better hurry

Randle Shooting Mitt, 3 sizes	**$2.00**
Randle Cartridge Block .22 Cal.	**.75**
Randle Non-Slip Metal Sling Keeper	**1.00**
Randle Sight Shade, Lyman 17A, 77 or Redfield Globe	**1.50**
Randle Scope Shade	**1.00**
B. & L. Draw Tube Scope, 20X	**32.00**
B. & L. N.R.A. Prismatic 19.5X	**58.75**
B. & L. 65 m/m Prismatic, 20 or 27X	**83.25**
Argus 55 m/m Prismatic, 20X	**62.50**
Lyman Targetspot, 10X	**68.00**
Freeland Offset Scope Stand	**7.50**
10-X Aristocrat Shooting Coat	**8.00**
10-X Imperial Shooting Coat	**10.00**
10-X Shooting Glove	**2.50**
Freeland DeLuxe Arm Cuff	**2.50**
Wilder Sling Pad	**.85**
Sling Tension Equalizer	**1.50**
Champion Score Book, .22 or .30	**1.00**
Shooting Mat, Waterproof, DeLuxe	**10.95**
Redfield Olympic Front Sight	**7.50**
Marble-Goss Super Vision	**6.00**
Vaver Q. D. Front Sight Front	**6.00**
Redfield Globe, with base	**4.50**
Lyman 77 Front, with base	**4.00**
Merit Master Disc	**4.00**
Marble-Goss Receiver, 52 or 37	**12.00**
Redfield Olympic Receiver, 52 or 37	**13.75**
Lyman 48FH Receiver, 52	**11.50**
Marble Clg. Rod, 1 Pc., .22 or .30	**1.00**
Issue Type Patches, .22 or .30, 1000	**1.00**
B. L. Ray-Ban Shooting Glasses	**12.50**
Palma, Palma Kleanbore, Targetmaster, Super Match, EZXS, Dewar Match Tackhole 1000	**8.65**
Kleanbore .22 L. R. regular, 1000	**6.78**
Western X-Pert .22 L. R. 1000	**6.78**

All above items prepaid, except ammunition.

Write for free 48 page catalogue.

THURMAN RANDLE & CO.

208 N. Akard St. Dallas, Texas

NATIONAL RIFLE ASSOCIATION WASHINGTON, D.C. OFFICIAL

Official N.R.A. Targets LITHOGRAPHED

LOOK FOR THIS SEAL

SEND FOR FREE New Illustrated Folder & Price List

Raw materials are growing increasingly scarce. Transportation difficulties are slowing deliveries. We suggest you order as far in advance as possible.

- Non-glare bull's-eyes
- Crisp white rings
- Sharp, clean bullet holes
- Positive Uniformity

NATIONAL LITHO CO. 1255 25th St., N. W., WASH., D. C.

3 GREAT NAMES ★ 3 GREAT HOTELS

3000 ROOMS WITH PRIVATE BATH

MODERATE RATES

HOTEL LINCOLN 44th TO 45th AT 8th AVE.

★

HOTEL EDISON 46th TO 47th AT BROADWAY

OWNERSHIP MANAGEMENT MARIA KRAMER, President

JOHN L. HORGAN General Manager

HUGH J. CONNOR Manager

And in the Nation's Capitol . . . ROOSEVELT HOTEL . . . Washington, D. C.

BOOST Your SCORE!

—with the New M-G Receiver Tang Sight

Puts aperture close to the eye. No "fuzzy" bulls. No eye strain. You see better — score higher. Special 1½" disc with recessed aperture diaphragm (.005 thick) gives sharpest definition. Send for Free Folder showing—

14 Score-Boosting Features

Crack shots everywhere are enthusiastic over this new Marble-Goss Sight. Now ready for Winchester 52, 56, 57 69 and Ballard; Savage 19, 22, 23 and 33. Also Stevens 417, 416-1; Ranger 50; and Remington M-37. Price, $12.50 additional for Springfield M-1 and M-2; Remington 34 and Winchester Single Shot Rifles. Get all the facts about this sensational new improved sight. Write for Free Folder.

MARBLE ARMS & MFG. COMPANY (A-155)
502 Delta Avenue Gladstone, Mich., U. S. A.

WE BUY

USED RIFLES SHOTGUNS REVOLVERS & SCOPES

Send complete description. State condition and lowest price acceptable. Do not ship equipment until authorized by us.

PARKER-WHELEN Co., INC.
827 14th ST., N. W., WASH., D. C.

KING GUN SIGHT COMPANY

Send only 10¢ for complete 84 pp. catalog

171 SECOND STREET · SAN FRANCISCO · CALIF.

$1.50 EACH. SPRINGFIELD RIFLE BARRELS. 30-06 caliber. Second hand. Limited Supply. We buy sextants, binoculars, field glasses, modern firearms, any kind, any condition. Weil's Curiosity Shop, 12 Strawberry St., Philadelphia, Pa. 7-42

MODEL 37 REMINGTON. COMPLETE ACCESsories, perfect, in factory carton, 1939, $55.00. Savage .22 Sporter, excellent, windgauge receiver double peep, 2 mag., $17.00. Perfect Remington Enfield, made 11-18, 30 cartridges, $26.00. 410 H. & R. 12" Single Pistol, excellent, $16.00. .38 Special and .30-06 empties. WANT—High Grade Press for .38 Special, .30-40, .30-06, or 45 A.C. Rim. Good Krag cases. E. S. Cornell, Charlestown, N. H. 7-42

SAVAGE 12 GA. 30 INCH BARREL, FULL choke, perfect, $55.00. Ansley Fox B grade 12 ga. 26 inch barrel Skeet Single trigger, beaver tail fancy stock, $125.00. .30-06 Springfield Sporter, very good, $60.00. American Eagle Luger, very good, $50.00. Others, stamp for list. Frank J. Carr, R. D. #2, Binghamton, N. Y. 7-42

VERY GOOD ORIGINAL 30 NEWTON #2244. Box cartridges, 42 empties, D.A. tool, $50.00. Nicholas 22 Cal. Free Pistol. Hammerless, auto ejecting, double set, 13" barrel, excellent, $50.00. 32-20 Remington Target Pistol, bore excellent, $18.00. 30-30 Ideal tool and mold, excellent, $4.00. Ditto 25-35. $4.00. E. B. Coffin, Waterville, Maine. 7-42

COLT OFFICER'S MODEL H. B. TARGET .38, good and 1000 primers. King Alto Saxophone and Trombone for sale or trade. C. E. Purdie, Faribault, Minn. 7-42

MODEL 42 WINCHESTER, 410 GAUGE, 28 inch, full, very good, $36.50. Winchester lever action, 10 gauge, 32 inch, full very good, $29.50. Remington Model 29 12 gauge 30 inch full, raised rib, pad, very good $39.50. Marlin Rifle Model 89, top ejector, calibre 40-60, good, $15.00. Savage 430 Over-and-Under, 16-28 single trigger, modified and full, excellent, $45.00. Marlin Rifle Model 94, calibre 25-20, 20 inch octagon half magazine, brand new, $24.50, We buy, sell and exchange all types of good used firearms, photographic equipment and binoculars. Just ship us what you have and we will send our check by return mail. Satisfaction guaranteed by our 68 year record of fair dealing. M. & H. Sporting Goods Co., 512 Market Street, Philadelphia, Pa. (Established 1874). 7-42

WINCHESTER 52 SIGHTS. DETACHABLE Marble-Goss rear, Vaver front telescope height; for slotted flat top receiver, slotted muzzle, brand new condition, $15.00. Leahman Brown, R.F.D. #2, Box #158, St. Joseph, Michigan. 7-42

COLT POLICE POSITIVE SPECIAL, 38 X 6, EXcellent, $40.00. Army Special, 38x6, never fired, $40.00. Same, 38x5, very good, $35.00. New Service, 44x7½, very good, $35.00. S. & W., 38x6, new nickel, good, $30.00. Beautiful English Webley, .455, 35 cartridges, $30.00. Same, lighter, 38 S. & W., $20.00. Savage Sporter, 25-20, good, $22.50. Savage Super Sporter, 30-06, very good, $45.00. Winchester 75 Target, complete, perfect, $37.50. 7.62 Russian Issue, Pacific peep, excellent, $18.00. Springfield Issue, good, $55.00. Mauser Sporter, new 24" Buhmiller barrel, 330 Weaver, B mounts, complete, perfect, $125.00. Others. Write your wants. WANTED—Guns. Equipment. All items listed June ad. Buy. Sell. Trade. Mail stamp answered. Member. Gordon Joslyn, Greenfield, Mass. 7-42

SELL: PACIFIC STOCK FOR KRAG, FACTORY bedded, $8.00. Stevens Scope No. 460, 26 in., 8X. 6.5mm Krag-Jorgensen loading tool. 350 6.5mm 160 grain soft nose bullets. 300 primers. Small balance scale. Best offers. Trade pound Bullseye for pound 2400. WANT—Hornet Ammunition. R. M. Zilla, Wolford, No. Dak. 7-42

COLT O.M.T. .38 SPEC. 7½", PERFECT, REGular and special grips, case, rod, $55.00. Colt D.A. 45 5", inside good, outside reblued, $25.00. R. Slagle, 650 Cleveland Ave., Marion, Ohio. 7-42

BRAND NEW M-70 STANDARD GRADE STOCK, complete with butt plate and swivels, never used, $13.50 Money Order. E. D. Webb, 406 Main Street, Tonawanda, New York. 7-42

CASES, FIRED ONCE, 38 SPECIAL IN boxes, 75¢ per hundred, 45 Auto-Rim, 1¢ each, 45 Automatic, ½¢ each, 30-06, 1¢ each, 38 Special cast bullets, greased, sized, ¾¢ each, sized only ½¢ each. Prices F.O.B. Cleveland's, 219 E. Third, Long Beach, Calif. 7-42

MODEL 23-D RIFLE WITH 330 WEAVER SCOPE attached, in excellent condition, $50.00. 1000 22-H shells. Nc., N.Mc. primers. M. J. Bullets, $4.00 per hundred. Empties, $1.50 per hundred. WANT—Complete set of dies, for Pacific tool 38 spl. caliber. Otto Schmidt, 309 East Bridge St., Redwood Falls, Minn. 7-42

FOR SALE: 45 COLT AUTO, PERFECT INSIDE, excellent outside, $30.00. 45 S. & W. 1917, perfect inside, excellent out, $25.00. Remington 380, excellent inside and out, $20.00. Colt 32 Auto, perfect inside, excellent out, $15.00. S. & W. 38 D. A. Top Break, fair to good, $10.00. F. Deckel Munchen Camera, f.3.5 Meyer Gorlitz lens, compur shutter, speeds 1 to 300, 127 or split. Sunshade filter, perfect, $25.00. Ideal M. Block 38 Special No. 360271, $3.00. Malcolm 4 power scope with mounts, perfect, $30.00. Geo. W. Heim, Chandler, Ind. 7-42

FOR SALE: HOFFMAN MAGNUM MAUSER, 375, engraved, excellent, 30 cartridges, $250.00. Genuine Suhl Charles Daly Diamond Quality, double 12-30 modified full, leather case, excellent, $500.00. Mannlicher-Schoenauer 6.5 18 inch Carbine, single trigger, bolt altered to knob, custom full stock, Noske scope block, peep sight, 94 cartridges, excellent, $200.00. Mauser-Niedner barrel, Hoffman stock, original 25 Roberts, 74 cartridges, 50 cases, resizing die, excellent, $150.00. Winchester Bee Gun, 150 cartridges, factory condition, $40.00. Smith & Wesson 1917 45, target sights, special grips, excellent, $40.00. Smith & Wesson Kit Gun, wide hammer, excellent, $30.00. Frank Ingram, 1315 Fairview Road, Atlanta, Ga. 7-42

LYMAN SUPER TARGET SPOT 20X, PERFECT, $75.00. Winchester 52, Marksman stock, serial #51540, excellent to perfect, no sights, $50.00. Krag original stock altered 30" barrel trigger adjusted excellent. 180 rounds mixed ammunition all good, $25.00. 225 rounds 30-06 issue, $3.00 per 100. A. J. Cook, Delaware, Oklahoma. 7-42

MOSSBERG SPOT SCOPE AND STAND, EXCELlent to perfect, $24.00. M52 Winchester H.B. Target brand new extras, $90.00. WANT—Issue Springfield 1903 Rifle, cheap, must be complete. Stamp please. W. M. Abbott, Box 185, Wilton, N. H. 7-42

WINCHESTER 70, 30-06, REDFIELD 70 MIcrometer rear, hunter nobs, Hawkins pad, hollow scope bases, no drilled holes, Government sling, finest sheepskin case, shot 100 times, inside perfect, outside excellent, $85.00. Colt Match Target, Roper click rear sight, Buchanan adjusted action, Curt Beyer's beautifully hand carved Roper type stocks, small, medium hand, factory perfect; in solid frame, full hand tooled heavy leather case, felt lined. Outfit cost $85.00, sell $75.00. First money order takes. M. L. Lund, 312 Jackman Street, Janesville, Wisconsin. 7-42

REBLUING PLATING FINISHING

CAREFUL CUSTOM WORK
Shotguns—Rifles—Pistols
GUN REBLU CO.
322 F Plant Ave. Tampa, Fla.

135 MILLIMETER HECTOR LEICA LENS AND case, good as new optically, $115.00. Also Zeiss Movikon with 1" standard and extra Zeiss Telephoto, leather case, whole outfit hardly used, $350.00. W. J. Holliday, Hammond, Indiana. 7-42

ANNOUNCING NEW CATALOG #21, price 25¢, listing over thousand bargains, Modern and Antique Firearms, Accessories, War Relics, Binoculars. 5X Imported Scope Sight, mount. $9.50. 45-70 and 50-70 Springfields, $14.50. Ammunition $1.75 box. 30-06 Mauser and Springfield Sporters, $68.00. Fine 8mm. Mauser Sporter, set triggers, $52.00. 25-35 Krag Mannlicher, $46.00. Several SS Lovells. Many Kentuckies. New M&P 32-20 and 38 Spec., $44.00. 41 Cal. and 38-40 Bisleys, $38.50. Various SA Frontiers and C&B Revolvers. John Smith, Rambler Ave., Runnemede, New Jersey. 7-42

SPRINGFIELD 30-06 AS ISSUED, EXCELLENT, re-heat-treated receiver, nickel steel bolt, new barrel, new "C" stock, sling, fired 200 rounds, very accurate, smooth, $50.00. Colt 45 Auto, excellent, $37.50. Colt 4¾" S. A. A. .357 Mag., very good out and excellent in, excellent mechanically, $45.00. S. & W., M. & P., .38 Spec., 5" 6", excellent in and mechanically, outside good, some holster wear, $35.00. Free Pistol by Widmer, St. Galen, 13" barrel, excellent, looks identical to Stoegers "Tell" model, $50.00. Jess Berger, Drumright, Okla. 7-42

SMITH & WESSON 44 Russian, single action adjustable target sights, 6½ inch barrel. Condition perfect, no indication it has been fired, collectors piece, nickel finish, blue sights. $55.00. R. H. Ehlers, 412 George St., Ridgewood, N. J. 7-42

SALE: 12X SUPER, $74.25. 10X TARGET-spot, $61.20. Both new. Tackhole Dots. Argus Deluxe 20X and 26X oculars, $65.00 new. Unertl ⅞" 16X eye piece, $5.00. Weaver 330 Tackhole Dot new $34.90 T mount. 440C, excellent, with Dot, no mount, $30.00. Tackhole Lee, Box 2123, Birmingham, Ala. 7-42

FOR SALE: 4 PARKERS, CHE 12-26, VERY good; DHE 16-28 excellent; VH 16-28, as new; VH 20-30, as new. L. C. Smiths, 12-32; Skeet 12-26; Specialty Trap, excellent. Ansley Fox 12-26 excellent, Krupp barrels; Fox Sterlingworth 20-28, very good. Ithaca "Victory" Trap. Win. Mod. 12, 28-26, very good. Will accept Win. Mod. 21 Skeet, 20-26, excellent in trade but nothing else. No post cards answered. Stamp for full descriptions. H. A. Haskell, Brattleboro, Vermont. 7-42

1917 ENFIELD BY WINCHESTER AS ISSUED, in very good condition, $32.00. J. R. Callum, 215 Colley Ave., Norfolk, Va. 7-42

GAME HEADS, FUR RUGS, ANTLERS, etc.; a few good Rifles, etc., for sale. S. Gerhardt, Taxidermist, Jamaica Plain, Mass. 7-42

WOODS THREE STAR, LARGE, DOWN ROBE, fair, $15.00. Double, wooden rifle trunk, 47½", $5.00. Craftsman rotary tool, accessories, perfect, #1172101. $10.00. Quantity machinists tools, list. Zeiss 8x40 Delactis individual focusing, perfect, $160.00. Winchester 52 Standard bbl., slow lock, 48, blocks, trunk case V. G. $47.50. Mauser 98 action except safety, $5.00. Springfield stocks, one as issued, new, one remodeled, each $3.50. Air Compressor, 1¾" bore, no pulley, $4.00. Winchester 52 action parts, complete except bolt, $12.00. F. W. Phillips, 2018 Birch, Eau Claire, Wisc. 7-42

FIELD GRADE SMITH 20-28 MODIFIED AND full, very good to excellent, grip cap chipped, $35.00. Also for Winchester 54: stock, sling, and swivels, very good, $6.00; Hornet bolt excellent, $5.00; Hornet barrel with 17A, fair, very accurate, $5.00; excellent 48, $10.00. Nelson Cole, 703 Baker, Belvidere, Ill. 7-42

WINCHESTER 54 30-06, EXCELLENT, $55.00. Winchester 64 30-30, latest model, excellent, $45.00. Winchester 67, excellent, $5.00. Krag Carbine, Pacific rear, sling, excellent in, good out, two boxes new ammounition, $25.00. Webley & Scott 455 Automatic Pistol, good. WANT—Webley 455 Automatic cartridges, hand guns, spot scope, shooting glasses, 30-06 ammunition, Springfield 30-06 Rifle, hunting scope, Colt ace, Conversion Unit. All mail answered. W. M. Gilkison, 1241 N. W. 51 Terrace, Miami, Florida. 7-42

SALE: 7MM SPANISH MAUSER AMATEUR Sporter, fine outside, bore poor, $20.00. Several unopened boxes .44 Colt (old model) cartridges, best offer. Soft leather case (unlined) for lever action rifle, good, $2.50. Stamp please. WANT—.275 and 10.75mm ammunition. Roy E. Carter, 31 Lincoln Ave., Niles, Ohio. 7-42

MAGIC WAND WELDER $19.95; IMMEdiate delivery assured only as long as present stock lasts. Frank Mittermeier, 3577 E. Tremont Ave., New York, N. Y. 7-42

ON ACTIVE DUTY!

All "Slick Trigger" orders now on hand will either be completed promptly or parts returned with full refunds. No new orders, please—I'm taking them now only from Uncle Sam! Use my old address for all essential letters. LT. M. L. SMITH, formerly of R-3, Bryan, Texas

REDFIELD

JUNIOR MOUNT

for Weaver and Alaskan Scopes

Extremely low, rigid, simple and positive. Windage adjustment on base. Extra strong yet light in weight. Guaranteed to withstand recoil of any rifle that can be fired from shoulder. *For Weaver scope, $9.50. For Alaskan scope, $11.50.* Extra Mount bases allow one scope to be used on two or more rifles—instantly interchangeable without changing windage adjustment. *Each Extra Base, $5.75.*

Also furnished for many other rifles—Send 10¢ postage for Catalog

REDFIELD GUNSIGHT CORP.

3315 GILPIN STREET **DENVER, COLORADO**

The UNERTL 1" TARGET SCOPE

In 6, 8, or 10X; 21½" long, and of unapproached quality at the very low price of $47.50, plus 10% tax, complete with our new ¼ minute click mounts and bases. If you are interested in obtaining the best, write for free booklet.

412 Cemetery Lane **J. UNERTL OPTICAL CO.** **Pittsburgh (9), Pa.**

HIGH GRADE PAIR WESTLEY RICHARDS Double Barrel Shotguns, #1 and #2, both 12-30 automatic ejector, modified cylinder and full cylinder, trunk case for pair, very good condition, $400.00, or $250.00 each. Hudson, R-52 Warren Street, New York. 7-42

22 LONG RIFLE, CUSTOM BARREL ON STEvens 44½, factory reconditioned, both excellent, mountings for Redfield Olympics, cheek piece, scope blocks, sling, weight 9½#, good offhand. David Bodle, Pequannock, N. J. 7-42

G.H.E. PARKER, 6½ LBS., 12 GA., 26 INCH, 55% and 65%, $100.00. Marlin Over-Under, 12 Ga., 30 inch, M&F, $40.00. 38 O.M.T., ventilated rib, 5 inch barrel, silver inlaid, Buckhorn grips, holster, loading press, dies, sizer and lubricator, powder measure, 3 cavity wadcutter mould, approximately 2500 cast bullets, 300 reloads, 500 empties, $85.00. 40-82 Winchester 1886, 22 inch barrel, half magazine, fair, $10.00. Colt Woodsman Magazine, $2.00. Dr. C. A. Carson, Coleraine, Minn. 7-42

BENCH PUNCH PRESS, HEAVY-DRILL PRESS Vice, expansion reamers, Military Mauser 7.63, Savage 32 Automatic, Winchester 25-20 single, target sights. Ross T. Bittinger, 801 19th, Parkersburg, W. Va. 7-42

1500 ROUNDS CASE .30-06 F.A. 1937 LOT #2008 Gov't. sealed. Highest bidder. F.O.B. Marysville. J. T. Peterson, Marysville, Kansas. 7-42

FOR SALE: FOX DOUBLE, AUTOMATIC ejector, Krupp steel, barrels 30" both full choke, perfect inside and excellent outside, cost over one hundred dollars, price $65.00. Offer ten dollars for good Winchester high-wall action, plain trigger, for straight stock. R. W. Winstead, Natchitoches, La. 7-42

32-40 BLACK, 80¢ BOX; 32-40 SMOKELESS SP, $1.20, 38-55 black, $1.00; 32 Winchester Special MC, $1.20; 300 Savage MC, $1.40; 32 Rimfire Long (Shot) 50¢. Sedgley Springfield stock, good, $15.00. W. S. Tanksley, Bristol, Tenn. 7-42

EVERY ITEM PRICED TO SELL. LIQUIdating large collection of fine custom built Shotguns, Binoculars, Rifles, Revolvers and Automatic Pistols. Send 10¢ in coin or stamps for descriptive list, including condition, serial number and price of each article. Export Trading Company, 5920 Melrose Avenue, Los Angeles, California. 7-42

shooting cost.
—Does not damage rifle nor reduce accuracy.
—Always strong, accurate and dependable.
—Made for 30-30, 30-40, 30-'06, Savage .300 and most popular cartridges. Can be used through the magazine of your rifle. Price, 75c each.

FREE! Write today for Marble's 82-page catalog.

MARBLE ARMS & MFG. CO. (A-82) 502 Delta Ave., Gladstone, Mich., U. S. A.

GRAHAM'S MILITARY GUN-BLU

Celebrated **Cold Chemical Process.** More in demand **Now** than ever, due to curtailed Sport Arms manufacture. Transforms rustiest guns into new Fire-arms in minutes—**Without Heating. Not a Paint.** Blues chemically, instantly—**On Contact! RATES TOP AWARD with leading gun authorities.**

YOUR DEALER HAS IT in blue and yellow package, $1.00. Ask For It By Full Name, Today—Sure!

GRAHAM CHEMICAL CO.
2749 Fenwick Ave.,
Belto., Md.

SUPERIOR HOLSTERS AND BELTS

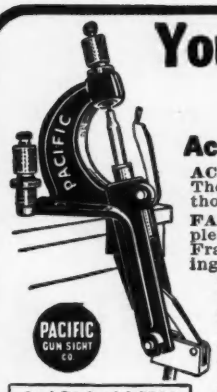
S. D. MYRES SADDLE CO.
EL PASO, TEXAS
Write for Catalog

GUN BLUING $1.50 qt.

Quick Method Bluing Solution

Not a paint! OXIDIZES METAL! Hot water solution. Easily, quickly applied. Will put a blue on your gun that will last for years. Nothing else like it on market. Complete directions with each bottle. Express Pre-Paid.

PARKER-WHELEN CO.827 14thSt.N.W.Wash.D.C.



You get everything in a "Pacific" Tool

Accuracy—Speed—Strength—Durability

ACCURACY is the most important element in reloading. The "PACIFIC" is a true straight line tool—one or a thousand loads come out with the same accuracy.

FAST OPERATING—one throw of the handle completely prepares the fired shell for the powder and bullet. Frame is made of cast steel with a U. S. Govt. breaking point test of 6,500 lbs. Dies and all parts necessary, made of hardened steel. Prices $20.50 and $22.50.

We manufacture the famous "Pacific" Sights and also carry practically every sight made in America. We try to carry everything for the Shooter and Reloader.

CATALOG-HANDBOOK NO. 20—A real encyclopedia of shooting equipment—reloading—sights—scopes—remodeling—accessories—supplies. Send 20¢ for a copy. The 20¢ partially covers the cost of publishing and mailing—the 20¢ will be refunded on your first order. Requests from Canada send 25¢.

Send for Special FREE Circular on Reloading

PACIFIC GUN SIGHT CO. 353 Hayes St., San Francisco, California • **Order Direct or Through Your Local Dealer**

◆ MUZZLE LOADERS ◆

HAVE DEED TO 52 ACRE RANGE IN INDIANA

And Are Now Out for Improvement Funds! Special Life Membership $25; Contributing Member $50; Patron $100. Souvenir Certificate and our Publication without Cost to all members in these Classes. Shoot with us This Season—District Matches and National Matches.

National Muzzle Loading Rifle Assn., E. M. Farris, Secy., Portsmouth, Ohio

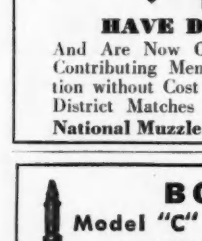
BOND

Model "C" Straight Line LOADING TOOL

•

Double Cavity

BOOST Your SCORE!



—with the New M-G Receiver Tang Sight

Puts aperture close to the eye. No "fuzzy" bulls. No eye strain. You see better—score higher. Special 1¼" disc with recessed aperture diaphragm (.005 thick) gives sharpest definition. Send for Free Folder showing—

14 Score-Boosting Features

Crack shots everywhere are enthusiastic over this new Marble-Goss Sight. Now ready for Winchester 52, 56, 57 69 and Ballard; Savage 19, 22, 23 and 33. Also Stevens 417, 416-1; Ranger 50; and Remington M-37. Price, $12. $1.50 additional for Springfield M-1 and M-2; Remington 34 and Winchester Single Shot Rifles. Get all the facts about this sensational new improved sight. Write for Free Folder.

MARBLE ARMS & MFG. COMPANY (A-165)
502 Delta Avenue — Gladstone, Mich., U. S. A.

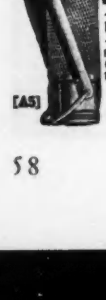
WE BUY

X-RING BULLET TRAP

1. Stops bullets by FRICTION
2. Saves the lead for reuse
3. The SAFEST backstop known

Only X-RING offers the centrifugal trap. Safe for all types of shooting—heavy or light calibre. Portable. Self-contained lighting. Saves lead in clean, usable condition. FREE illustrated folder.

X-RING PRODUCTS
503 North St. — Peoria, Ill.



MATCHES ALWAYS DRY!

—If you carry a Marble's water-proof match box in your pocket. Absolutely water-proof—holds supply for several days. Made of seamless brass, ¾-inch in diameter. Only 60c at your dealer's, or sent postpaid. Get one today. Write for complete FREE Catalog.

[A5] **Marble Arms & Mfg. Company**
502 Delta Av. Gladstone, Mich. U.S.A.

WINCHESTER 54, 30-06 LYMAN #48 REAR, fair out, good in, $55.00; Colt 45 issue, fair to good, $30.00; Colt .38-40 Frontier, fair, $17.50; Luger 30 cal. fair in, good out, $25.00, another fair in and out $22.50, another fair out, poor in, $18.00; Luger 9 mm., fair in and out $25.00, another fair out, poor in, $18.00; Colt 380 automatic, good, $18.50, another good in, fair out, $15.00; Colt 32 automatic, good, $17.50; Woodsman 6½, good in, fair out, $30.00; Hi-Standard "B", very good, $22.50; Colt .38 Spec. 2½, Police Positive, fair, $25.00. O. H. Lloyd, 1005 Oliver Eakle Bldg., Amarillo, Texas. 7-42

DUPONT #80 IN STOCK, REWEIGHED from keg, $3.50 per pound. Dupont 4350, 4320, 4064, 3031, 4198, 4227, Hercules HiVel #2, Lightning, 2400, Sharpshooter, $2.00 per pound, six pounds, any assortment, $10.50. Dupont 4759, $1.50 per eight ounce canister. Hercules Unique, Bullseye, $2.25 per pound. Send Federal Powder permit with order. No primers of any kind. Super Targetspot, 10X, excellent, $75.00, same 15X, $75.00. Targetspot 10X, old style, excellent, $50.00. Junior Targetspots 8X and 10X, new, $55.00. Unertl, 1", 6X, excellent, $50.00. Fecker 1⅛", 10X, excellent, $60.00. Fecker 1½", 16X, new, $100.00. Krag, as issued, V. G., $25.00. Enfield 30-06, outside excellent, bore and headspace perfect as issued, $30.00, without stock, $25.00, action only, $20.00, barrel only, $7.00. S&W Straightline, excellent, $30.00. Woodsman, 6½", excellent, $45.00. Wanted for cash: Krags, Springfields, Enfields, K22, .38 and .22 O. M. T., Ace, Hi-Standards, any model, modern 10 gauge double, 54 or 70 in Hornet, Lovell, or Varminter. Or what have you? Robert Haelig, Boundbrook, N. J. 7-42

.357 MAG. COLT BISLEY, NEW 7 IN. BARREL. King red bead ramp front sight, double adjustable rear outlined in ivory. White franzite grips, nice blue, excellent condition, very accurate, holster, 200 new primed cases, 200 bullets, 300 primers, complete outfit—$75.00. 9 M.M. Luger, 8 in. barrel, shoulder stock holster, extra 32 shot drum magazine and loader. 220 Kleanbore MC cartridges, very good condition, excellent defense arm. $90.00 complete. No trades, M. O. only. J. Hendrick, 825 W. Evergreen Avenue, Chicago, Illinois. 7-42

ONE .45 COLT ARMY MODEL AUTOMATIC, $30.00, good. 30-06 Eddystone Enfield sporter stock, no rear sight, good, $34.00; Krag Sporter, checkered burl walnut, King front, Lyman rear, good, $20.00; .38 Colt Automatic, fair, $27.00. WANT—Springfield receiver. Will ship COD. S. Wilson, Domingo, N. M. 7-42

NATIONAL MATCH SPRINGFIELD, $50.00; Issue #1010013, "C" Stock $47.50; SW 1917, $30.00; Colts 1917 $27.50; 45/90 Win. $30.00; VH Parker 12-30", $45.00; Smith 410 high-rib $55.00; LeFever Single $25.00; All very good to fine. Malcolm 2X scope $25.00; 300 firearms; will trade. Fred X. Johnson, Grand Ridge, Illinois. 7-42

WINCHESTER .30-'06, M70, EXCELLENT, $75.00; with 48WJS, $85.00. Remington 30S, 7m/m, excellent, $70.00; with Weaver 330, $100.00. Winchester factory built, .219 Zipper, Single Shot, heavy barrel, A5 scope, 90 cartridges, excellent, $55.00. Paul E. Boyce, North Branford, Conn. 7-42

SELL WINCHESTER 92, 25-20, ROUND BARrel, Plain Sights, Push Ahead Set Triggers, 120 Hi-Speed Cartridges, $30.00. Colt Police Positive .32, 4 inches, 50 Wad-Cutter Cartridges, $25.00. Both Good. Fred L. Clifton, Memphis, N. Y. 7-42

54-06 CARBINE, SPEED ACTION, LIKE NEW, with new Weaver 330 and Turner mount, $100. WANT—.25 caliber barrel. L. A. Wilke, 3601 Fort, El Paso, Texas. 7-42

MUZZLE LOADING RIFLES, WITH ALL accessories, $15.00. Shotguns with all accessories, $12.00. Extra barrels for both, $5.00. Colts, S. & W. and Remington Modern and Antique Pistols. Deer Rifles, Bolt and Lever Action, $15.00, up. Browning Over and Under's; Automatics, Pumps, Doubles; Singles. Various makes and gauges. Lists of your interest, 10¢ each. Geo. Brullesauer, 3957A Castleman, St. Louis, Mo. tf

COLT FRONTIER 357 MAGNUM, 7½" BARREL, new condition, $50.00. S. & W. Military Police Target 38 Special, 6", King red reflector front, excellent, $50.00. Savage 23D Hornet, extra magazine, very good, $27.50. Remington 35 Model 14, Marbles peep, sheard gold front, sling, very good, $42.50. J. W. Varner, P. O. Box 281, Scranton, Pa. 7-42

EXCELLENT .32 CAL. OFFICERS MODEL, $45.00 with factory stocks, $50.00 with Sanderson stocks, shot 80 times, first money order. Ed Coughlin, Fort Smith, Ark. 7-42

BAUSCH & LOMB N.R.A. 19.5 AND 36.5 SCOPE with sheepskin case, excellent, $50.00. Bausch & Lomb 6x25 CF Binoculars, very good, $45.00. Zeiss 6x18 CF Telita Miniature Binoculars, excellent, $70.00. Also Savage 250-3000 #99-G Takedown, factory sights, very good, $45.00. Money orders. No trades. Warren J. Boe, #114-33 132nd Street, South Ozone Park, New York. 7-42

$1.00 GOVERNMENT LEATHER HOLSTERS for 45 Automatic Pistol. Slightly used. Weil's Curiosity Shop, 12 Strawberry St., Philadelphia, Pa. 7-42

300 H. & H. MAGNUM BULL GUN, MAUSER action, 30" barrel, set trigger, scope blocks, built by Neidner, fired less than 200 times, very accurate, excellent, $135.00. Winchester 52 Standard, rear sight 82A, front 17A, perfect, $65.00. Lyman Super Target Spot, 20X, perfect, $75.00. 300 HH reloading dies and shell holder, $9.00. 200 primed 300 HH cases, $10.00. One set Stith mounts for Alaskan or Weaver, $10.00. 117 grain 25 caliber SP bullets, $2.25 per hundred. R. B. Danley, 850 East 47th Street, Chicago, Illinois. 7-42

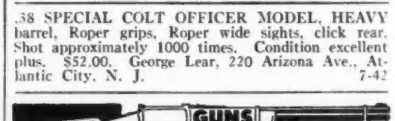
SAUER-MAUSER 8MM RIBBED BARREL, d.s.t., hinged floor plate, factory mounted "Skopar B" hunting scope, internal elevation, excellent, $100.00; scope and mounts alone, $35.00; rifle alone, $75.00. Newton .256 barrel, good, $5.00. Springfield service stock, good, $5.00. Ballard d.s.t. #4 barrel, Scheutzen stock, $10.00. Vernier sight, $2.00. High side Winchester action and stock, incomplete, $4.00. E. W. Robbins, Milford, Mass. 7-42

FOLLOWING EXCELLENT TO PERFECT. Mashburn Bee's, Winchester H.S. $50.00, Bullard $45.00; Winchester 52 H.B., Vavers, latest $80.00; Savage 99F, $40.00; 99 G, $50.00; Winchester 54, 20" $55.00; All 250/3000; Winchester 94, 30-30 and .32 Special Carbines, $35.00; Savage 99, 30-30, $40.00; Remington 14, .30 Rem. $50.00; Mauser Custom Sporter, 30-06, value $125.00, $80.00; Colt .45 Auto. $37.50; N. M. $60.00; D.W.M. Eagle Luger 7.65, Good, 100 rounds Ammunition, $30.00; Stevens Hoffman K Hornet D. S. triggers, Loop lever, P. G. Circassian Stock, V.G. $35.00. Stamp for list. Mashburn Arms, 100½ W. Grand, Oklahoma City, Okla. 7-42

NEW WINCHESTERS: TARGET AND STANDard: 250-3000, .30-'06, Swift, Heavy Sweany Swift, tools, components. Unique collector's Springfield, "Tiger" stock, Eight lands! Make offers. Stamps please. Squier Jones, Amherst, Palo Alto, California. 7-42

FINE 16 GAUGE LONDON FLINT SHOTgun, original and perfect, price $50.00. J. G. Dillin, Media, Pa. 7-42

.38 SPECIAL COLT OFFICER MODEL, HEAVY barrel, Roper grips, Roper wide sights, click rear. Shot approximately 1000 times. Condition excellent plus. $52.00. George Lear, 220 Arizona Ave., Atlantic City, N. J. 7-42


USED
GUNS
BOUGHT
SOLD-TRADED
State make, model, caliber and condition of guns offered or wanted.
(Sale of new guns prohibited by Government)
"The Shooter's Bible", 512 pages—$1.00
STOEGER ARMS CORP. 507 Fifth Ave., N.Y.

SPRINGFIELD 30-06, #1429244, STOCK shortened, $44.00; Niedner Mauser Sporter 257 Roberts, 28" heavy barrel, ramp, Redfield sights, scope blocks, excellent, $80.00; Colts Bisley .38 Spl. 5½", new barrel, $40.00; Colts 1917, .45, $33.00; Colts S. A. 45-4¾", 200 ctdgs., $35.00; Colts Frontier 44-40, 7½", fair, $20.00; Colts 40-60-260, Lightning Express Rifle, tool, mould, ctdgs., $24.00; Colts 45 Auto, commercial, holster, belt, $43.00; Iver-Johnson 38-3¼", blued, good, $9.00; Two 45 Auto. barrels, new, $4.75 each; Two Winchester 30-30 Carbines, $32.00, $38.00; Two Winchester Hi-side 30-40 rifles, $20.00 each; Two Winchester '97, 12 gauge shotguns, full choke, $23.00 each; Winchester '94, 38-55, 26", 40 ctdgs., $20.00; Stevens Diamond pistol, 22-10", $4.00; Lyman Expert scope, $5.00; Wee Weaver scope, $3.00; Remington MH, 12-32", extra barrel, 26" imp. cylinder, $55.00; Ammunition: 30/06, 30/40, 270, soft point. Ray Nelson, Roy, Utah. 7-42

JEWELERS LATHE COMPLETE, VISE, BENCH, tools and parts $65.00; Will sell part or all. Savage 99-R. Solid, 38-55, with 1 box Ammo at $27.50. Stevens 44½ 22 Hornet, plus 100 loads, at $35.00. Winchester H.S. R-2 Custom, 150 Cases, 750 bullets, 750 Primers, tools, 3 lb. Powder, Complete at $75.00. Enfield '06. Never fired, at $35.00. Springfield '06 issue, $35.00. W. C. Barnhart, Box 74, New Carlisle, Ohio. 7-42

.38 HB OM, #616,108, VERY GOOD, PACHmayr, very light, clean pull, zipper sheepskin, Meepos dies, shellholder, good, 500 empties; Money order. $57.50. Express not prepaid. 360 FA 1935 unprimed cases, best offer. Hugh Byron Carnes, 939 Broadway, New Orleans, La. 7-42

MALCOLM 6 POWER #1 SCOPE, LYMAN CLICK mounts. New condition. Best offer. F. P. Wilson, Roxbury, New York. 7-42

MODEL 70 WINCHESTER, 270 CAL., WHELEN Sling, 5 Boxes Silvertips, All new, factory Box and Grease, $80.00. Coy Poe, Box 763, Goose Creek, Tex. 7-42

WINCHESTER 52 BULL GUN, WEAVER FRONT, Marble-Goss rear, excellent plus, $85.00 money order. A. H. Dill, Rockaway, New Jersey. 7-42

WINCHESTER 63, BRAND NEW, FACTORY box, selected stock, heavy deluxe cowhide case, $65.00 cash. Dr. Rudolph Patzig, Morton Grove, Ill. 7-42

.380 REMINGTON AUTOMATIC PISTOL, 30 cartridges, good, $15.00. Harry Kuhlemeier, 109 Polk St., Burlington, Iowa. 7-42

FECKER 12.5x1⅛" WITH DUST CAPS, AND ¾" mounts, excellent, $50.00. WANT—Winchester 75 Sporter, Marlin 39, and Colt Bankers Special, .22 Cal. Milton Pittman, Columbus, Nebraska. 7-42

M70 SWIFT STANDARD, NEW, 2 BOXES AMmunition, 100 cases, 1000 Sisk 55 gr. express bullets, 1000 primers, 4# 4064, want offer for outfit; S. & W. hand ejector, 32 S. & W. long, 1000 cartridges, excellent, want offer; No. 1 sizer and lubricator 311 and 356 dies perfect, $10.00; 5M Ideal gas checks, L.75 per M; Ideal tool, 22 Hornet $4.50; same 38 Spec. D.A. chamber, $5.00; Ideal molds 357446, 360345-S new, $4.00 each; Polaroid no mounts new $4.00; Redfield 102RW, 102K, 102M new, $5.00 each; Lyman 103 for 44½ Stevens, perfect, $6.50; Mauser action, bolt handle for low scope, in white, $20.00; Bishop Krag, Spr., and Win. S. S. stock, one each $4.00; Winchester A-5 scope perfect inside, blueing worn, $22.00; Fecker 1½ inch 10X, Lyman 3 point, perfect, $85.00; 9mm Luger, 4¾ inch, 475 rounds, $65.00; 30 Luger, 500 rounds, $65.00; Colt 1917 .45 service model, very good, $25.00; .45 Colt Auto, Service model, very good, $30.00; Fairbanks 3054 scale new, $18.50; prefer check or M.O., your money back at once if not satisfied. Paul Rast, 1937 Bryant Avenue South, Minneapolis, Minn. 7-42

WINCHESTER MODEL 12, 12 GAUGE, 30" full, excellent to perfect, $50.00. S. & W. Single Action 32 Long R.F. 6" barrel, patented 1855, pearl grips, nickel plated; outside excellent, inside slightly rough; two boxes shells, $25.00. 45-70 Springfield, good, best offer. Albert Pabst, Wallace, Idaho. 7-42

D.W.M. LUGER 30 CALIBRE SHORT BARrel proof marked, very good, $32.50. Commercial Colt .45 Auto, fair outside, excellent in, $30.00. Woodsman long barrel, good out, very good in, $35.00. Savage .32 new model, fair outside, very good inside, $25.00. Sauer .25, very good, $17.50. Others, express inspection, write for descriptions. J. K. Bach, P. O. Box 2902, Miami, Florida. 7-42

BROWNING LIGHTNING OVERUNDER .28 F&M, raised rib, single trigger, perfect, $90.00. .348 Deluxe, very good, $50.00. WANT—Remington 81A 300. Harold Loomis, Gouverneur, N. Y. 7-42

300 PER CUSTOMER!
To help more shooters keep active, and to avoid the long delays now necessary in filling large orders from our limited production facilities, we have decided to restrict all future orders to not over 300 bullets. We ask your indulgence—and cooperation!
WOTKYNS-MORSE, 817 Prescott St., Herkimer, N. Y.

WE APOLOGIZE—

for the announcement in the June RIFLEMAN about our new line of shooting medals. Much to our regret, it now appears this announcement may have been a bit premature—we're having "metal" trouble!

In pre-war days most medals were made basically from copper, but there just ain't any of the "red metal" any more. We *thought* we had the necessary clearance to permit our using silver, but we now find this also requires official sanction. It's forthcoming soon, we've been assured, but in the meantime we obviously can't mail the descriptive circular on the new line.

The new dies are ready—and they are truly of exceptional quality. So, take our word for it, these new medals will be well worth waiting for!

GENE MITCHELL

V. H. BLACKINTON & CO.

Established 1852

P. O. Box 261, Ben Franklin Station Washington, D. C.

FOR THE SHOOTER—BY A SHOOTER
"EVERYTHING BUT ALIBIS"

THE WELL KNOWN AND POPULAR FREELAND ARM CUFF, $2.25, $2.50. ALWAYS STAYS ON THE COAT; no trouble or bother. FREELAND TRIPODS $6.50, $7.50, $8. B&L and ARGUS SCOPES. TEXAS RANGER BELTS $1.50-$2.50. boxes $3.25; MARBLE CLEANING RODS, CARBIDE AND CARBIDE LAMPS, FREELAND FORE-END STOPS, $2.50, $1.50 for 513TR and the late 52s. SCORE BOOKS. OILS. SHOOTING GLASSES. RANDLE, 10X and Croft shooting mitts, targets, pasters, mats, $8.50.

AL FREELAND 1112 35th Street Rock Island, Illinois

SEVERAL WOODCHUCK OUTFITS, SCOPE, camera, ammunition and accessories. WANT—handguns. F. H. Holden, North St., Northampton, Mass. 7-42

1000 WESTERN #6½ PRIMERS, BEST Offer. 400, 1918, 150 Gr. .30-'06 cartridges, split necks, 2¢ each. Univex Mercury, Model CC, 35mm. Tricor Candid Camera, $35.00. Univex Model C8, 8mm Movie Camera, $25.00. Paul Ratliff, N4912 Market, Spokane, Wash. 7-42

$1.00 RIFLE MOUNT FOR TELESCOPE Sight with instructions. Limited supply. Weil's Curiosity Shop, 12 Strawberry St., Philadelphia, Pa. 7-42

SELL OR TRADE

EXCELLENT MODEL 37-T ITHACA 12 GAUGE 30" full choke, $82.50. Excellent 15X Targetspot, $72.50. WANT—Browning Overunder, Hornet or Lovell, others. P. B. Pickle, 262 Lewis St., Sheridan, Wyo. 7-42

K-22, FIRED 70 TIMES, KING SIGHTS, HOLster, original box, perfect, $45.00; trade for excellent M70, Swift, .250, .270, .257, Bee, Zipper, Zieklein, Unertl. Sell excellent 38 S. & W., 4" barrel, walnut grips, hammerless, $17.50; 250 Bond Tool, $7.50; trade for excellent 30 WCF Carb., .250, 330 Scope, 22 Wildcat. Joe Warnisher, Lewistown, Montana. 7-42

SELL OR TRADE: 45 AUTO, ARCH HOUSING, good; .45 '17, perfect. WANT—.38 Super; 38-44; .357; .38 Spec. S. & W. 2", 4" bbl.; H. E. 4½"; .22 Bankers Spl.; Detective Spl. What have you? Milo Cross, 131 E. South St., Jackson, Michigan. 7-42

WANTED—EXCELLENT REMINGTON DOUBLE Derringer, nickel, pearl grips preferred. SELL—32 Cal. 81-A full pistol, capped, checkered, oil finish, sling, excellent, $75.00 or trade for excellent late 52 Sporter. TRADE—38 O.M.T. factory rebuilt, reblued, factory grease for excellent 22 O.M.T., patridge sights. Satisfaction guaranteed. James O'Brien, 59 Ainsworth Ave., Manchester, N. H. 7-42

WINCHESTER 218B CHROME 92 ACTION AND Win. bbl., $30.00. 45 Colts N.S., $35.00. Fox 16 Sterlingworth, $50.00. Winchester 97 Trap Deluxe, sell or trade. All above new, perfect. Sharps Sport 50-70 d.s. triggers, Vernier peep, barrel like new, $20.00. Fancy 27 Marlin 25 R.F., $18.00. Several fine Marlin big bores. E. R. Fraser, Gibson City, Ill. 7-42

SALE OR TRADE: 95 Winchester 30-40, $30.00. Sharps-Borchardt Hornet, $40.00. Savage Utility 3 interchangeable barrels, $15.00. Stevens 410 O/U, $12.50. Belgium Double Rifle and Shotgun, $25.00. WANT—6.5mm Mannlicher-Schoenauer Rifle. A. Donald Amesbury, 311 Conway, Narberth, Penna. 7-42

USE ONE GUN
For Big and Small Game
with MARBLES
Auxiliary Cartridge

Make your big game rifle instantly suitable for small game or target use with Marble's Auxiliary Cartridge.
—Uses cheap ammunition and reduces shooting cost.
—Does not damage rifle nor reduce accuracy.
—Always strong, accurate and dependable.
Made for 30-30, 30-40, 30-'06, Savage .300 and most popular cartridges. Can be used through the magazine of your rifle. Price, 75c each.

FREE! Write today for Marble's 32-page catalog.

MARBLE ARMS & MFG. CO. (A-82)
502 Delta Ave., Gladstone, Mich., U. S. A.

GRAHAM'S MILITARY GUN-BLU

Celebrated **Cold Chemical Process.** More in demand **Now** than ever, due to curtailed Sport Arms manufacture. Transforms rustiest guns into new Fire-arms in minutes—**Without Heating. Not a Paint.** Blues chemically, instantly—**On Contact! RATES TOP AWARD with leading gun authorities.**

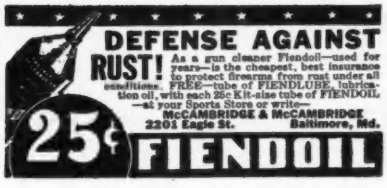
YOUR DEALER HAS IT in blue and yellow package, $1.00. Ask For It By Full Name, Today—Sure!

GRAHAM CHEMICAL CO.
2749 Fenwick Ave., Balto., Md.

BULLET TRAP $13.00 f.o.b. Detroit

Small, compact, portable, *inexpensive*, and highest efficiency. Size 12" wide, 14" tall, 17" deep. Weight, approx. 42 lbs. For every pistol and revolver up to and including the .357 Magnum. Also for .22 caliber rifle.

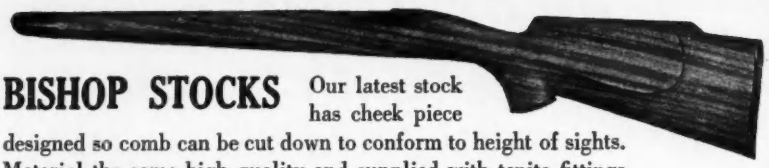
DETROIT BULLET TRAP CO.
Box 56, College Park Sta., Detroit, Mich.



DEFENSE AGAINST RUST! As a gun cleaner Fiendoil—used for years—is the cheapest, best insurance to protect firearms from rust under all conditions. FREE—tube of FIENDLUBE, lubrication oil, with each 25c Kit-size tube of FIENDOIL —at your Sports Store or write—

McCAMBRIDGE & McCAMBRIDGE
2201 Eagle St. Baltimore, Md.

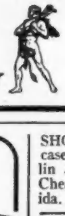
25¢ FIENDOIL



BISHOP STOCKS Our latest stock has cheek piece designed so comb can be cut down to conform to height of sights. Material the same high quality and supplied with tenite fittings attached. For all bolt actions. Price $5.00. Mannlicher type $7.50. Individually hand fitted to your rifle, $4.50 extra. Shipping weight of stock, 4 pounds. Catalog ready.

E. C. BISHOP & SON **Warsaw, Missouri**

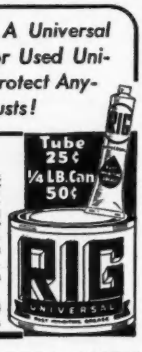
Promote the sport of rifle shooting



SPORTING POWDER DIVISION
HERCULES POWDER COMPANY
INCORPORATED

980 King Street
Wilmington, Delaware

RIG *... A Universal Rust Inhibitor Used Universally to Protect Anything that Rusts!*



RIG Universal is not only the finest rust inhibitor for the protection of rifles and firearms, but is also universally used to protect tools, fishing tackle, golf clubs, knives, razor blades, auto chrome, battery terminals, etc. Save everything that rusts by protecting it with **RIG** Universal. Accept no substitutes—**BUY** from your dealer or direct!

RUST INHIBITING PRODUCTS
5836-R Stony Island Ave., Chicago, Ill.

We Save You Money

Our No. 12 catalog, listing over 500 items. Send 15¢ in stamps for your copy today.

P. J. O'HARE

America's Largest Manufacturer and Importer of Rifle Accessories

552 Irvington Ave. **Maplewood, N. J.**

Belding & Mull

RELOADING EQUIPMENT

Complete 130-page B & M Handbook, 50¢. Descriptive folder, free.

Belding & Mull, Philipsburg, Pa.

ISSUE KRAG, VERY GOOD, 45 FMJ CARtridges, $25.00. Issue M1905 Ross, .303, good, with Marbles receiver sight, 30 SP cartridges, $20.00. M1898 Mauser Carbine, 8mm, fair, original bolt, bent down handle as issued, new firing pin, mechanically sound, sawtooth bayonet, $22.50. WANT—Springfield Rifle, or action only, give number and condition, MI, MII issue ammunition, or make offer. Paul Stanley, Trona, California. 7-42

WINCHESTER 70-300 H. & H. SELECT BULLgun, Lyman 48 and 77, excellent except stock, inside barrel perfect. $100.00 or trade for Target model in like condition. WANT—70, 30-06 National Match. E. G. Pope, Lubbock, Texas. 7-42

REMINGTON MODEL 11 Automatic 12-28 modified, excellent, $60.00. Fox-Sterlingworth Double 12-28 M/F, perfect, $60.00. Enders Double 410x26 full, good, $22.00. Savage Model 99F Takedown 250-3000, Lyman Tang, very good, $50.00. Haenel Mauser Carbine 8mm, good, $15.00. L. W. Pond Revolver Tip-Up S.A. 31 Caliber, scarce, good, $15.00. Old Town Canoe 16 foot green, good, $45.00. Many others. List, Stamp. Ed Howe, Coopers Mills, Maine. 7-42

SHOTGUN CASE $7.50; S&W "STRAIGHTLINE", case, excellent $35.00; Graflex, extras, $70.00; Marlin 39, fair, $18.00. List Flintlocks, etc. WANT—Cheap 4X scope. E. F. Brandt, St. Augustine, Florida. 7-42

AIRCO MODEL DB CUTTING TORCH, $20.00. Hornet, Win. HS., SST., Johnson-Diller barrel, B. & M. 5X scope, sling, accurate, $60.00, gun $35.00. Stevens Mod. 45, .22 L.R., DST., Vernier tang, Lyman 77A, blocks, sling, $30.00. Stevens 044½ .22 L.R., Diller relined, Vernier tang, $20.00. 044½ C.F. action, 414 stock, no barrel, $10.00. Stevens Mod. 49, engraved, DST action, M1 barrel .22 L.R. (Johnson) 330-C scope, $50.00. Binoculars 8x25 (France) case, straps, $18.00. Shotguns; five doubles, $15.00—$40.00. WANT—Handguns, Ace, Scope, Camera, Auto Shotguns, Rifles, or ? . Wilson Fuller, 617 Central, Anderson, Indiana. 7-42

8x24 HENSOLDT "ARTILLERIES" BINOCUlars, good. Winchester Model 03 22 caliber Auto Rifle. WANT—Target or Spotting Scope. Roy B. Peterson, 423 Clairmont Ave., Decatur, Georgia. 7-42

70 .250-3000, PERFECT; 70 7MM, 330, NEW; 30S '06, 330, perfect; 23AA, 29S. Accept S. & W.'s, Alaskan, .270 preferably. C. W. Flinn, 612 Patterson, Chicago, Ill. 7-42

30 CAL. GAS CHECKS, $1.25 per 1000 postpaid. New 1918 30-06 primed cartridges cases, $1.50 per 100. Warner & Son, 2512 Pleasant Valley, Altoona, Penna. 7-42

GERARD HUNTING SCOPE 4X, LARGE MODEL. $60.00. WANT—Automatic Shotgun, Spotting Scope. A. T. Mickle, R-4, Madison, Wisconsin. 7-42

COLT S. A. A. 44 SPECIAL, $25.00. ROLLIEcord, f.3.5, case, $95.00. Cine Model B, case, Weston meter, $75.00. All V.G. WANT—K-22. Hornet, Trap Gun, Skeet Gun. Frank Wilkinson, 82 Monticello, Buffalo, N. Y. 7-42

3½ INCH D.W.M. LUGER, 30 CAL., VERY GOOD inside, slightly holster worn out, $35.00 or trade. WANT—Colt 45 Auto, K-22, O.M.T. 22 or what have you? W. W. Hobbs, Box 541, Radford, Va. 7-42

SPRINGFIELD SPORTER 30-06, LYMAN 48 and scope blocks, very good, $70.00. Gov't .45 Auto and holster, good, $35.00. Kodak Bantam Special with f.2 lens. W. R. Rhinehart, Dice Road #2, Galion, Ohio. 7-42

PERFECT FAJIN CUSTOM VARMINTER, M-70 Roller bearing trigger. Edistone action. Winchester bull barrel, scope blocks. Complete loading tools, shell forming dies, 30 loaded, 80 empty cases. Value $172.00. Sell for $95.00. Will trade. Hill Pearce, 115 North 20th Street, Birmingham, Alabama. 7-42

WINCHESTER 52, STANDARD BARREL, CUStom-built, carved stock with cheek rest, beavertail fore-end, suitable for short shooter. Lyman 48-J, 17-A. Plywood case. Good or better condition. Pictures, dimensions, on request. Best cash or trade offer. Mrs. Leonard Adamac, R.F.D. #1, Dubuque, Iowa. 7-42

FECKER 1¼ PRECISION 15X, VERY GOOD, $60.00. WANT—70 Varminter, Swift, 250-3000, Lee dot for Fecker, Alaskan, Remington 720, Targetspot. Earl Price, Lodi, Wis. 7-42

FOR SALE: EXCELLENT TEN POWER ANDRE Binoculars, $70.00. Will trade for excellent 30-06 Springfield, Remington, Enfield Rifle. J. L. Shull, Tyler, Texas. 7-42

M70, 30-06, ALASKAN G&H MOUNTED, EXCELlent, $125.00; Weaver 330, VG, $22.00, 29S $10.50, latest Remington 37, Perfect, no sights, $65.00. WANT—.38 Special .45 Auto, 75 or 52 Sporter. Deer Rifles. Vic Breneman, Hershey, Pa. 7-42

SELL OR TRADE: 2 COLTS CYL. RIFLES, GOOD working order, best offers, modern pistols, .45 Auto., Lugers or What? W. H. Lydick, Moundsville, W. Va. 7-42

GENUINE PRE-WAR LUGER, 7.65, 4½", Squeezer, mechanically perfect, $30.00. Ballard, with Winchester H.B., no sights, Perfect, $30.00. 1100—30-06 F. A. Cases, $10.00. WANT—Hi-Standard H.A.; Case .30-06 Boattail, any year. F. C. Culler, Alliance, Ohio. 7-42

SELL OR TRADE, 300 SAVAGE, EXCELLENT, $70.00. Krag Sporter, Hart magazine, Excellent, $35.00. Winchester 25-20, Set trigger, Lever, Single, Barrel poor, Wood beautiful, $20.00. Colts .45 Auto, good, $25.00. .38 Army Special, Blue worn, Excellent in; another D. A., pearl; $30.00 each. WANT—Officers .38 and .22 Match Target, K22. Small metal lathe, Small tools, New Departure, pearl, .32. Charles Wilkins, Luke, Md. 7-42

BAYARD .32 AUTO, COMPACT, EXCELLENT, $22.50. S&W Topbreak .32, 3½ inch, Excellent, $16.50. H&R Double Action Sportsman, $27.50. 351 Winchester $42.00. Remington 22, Model 12A. WANT—Pump, or Auto shotgun. Joe Bell, Darlington, Wis. 7-42

TRADE

TRADE—2 NEW 600X16 TIRES, TUBES, SEARS Allstate, with cash; for excellent heavy Winchester 52, scope sights preferred. Correspondence solicited. D. J. Vanderwal, Box 352, Pleasanton, Calif. 7-42

TRADE—PETERSON .22 L.R. 1 1/16"x26", GOOD inside, poor outside, very accurate, for Winchester 52 heavy (barrel only) or buy later. Benj. Mecklenburg, Mt. Vernon, N. Y. 7-42

TRADE—VERY GOOD 7.63MM 30 CAL. MAUser for Colt Ace or S. & W. 357 Magnum. WANT—P.P. Cal. 22 Long Rifle or Star Cal. 22. Everett Layman, Eaton, Ohio. 7-42

TRADE—OVER-UNDER 20 GA. SEARS (MARlin) excellent, for K-22 or? C. F. Behlen, 3386 Hartwood, E. Cleveland, Ohio. 7-42

TRADE—SALESMANSHIP AND REAL ESTATE International Correspondence School Course, cost $100.00, for Target Rifle, what have you? Also complete Target Rifle for ten year old shooter. John Santoro, 440 Knox, Monessen, Penna. 7-42

TRADE—52 STANDARD, SPEEDLOCK, VERY good; for 54 or 70 250-3000 or 257. E. L. Jewett, 1221 Evergreen, Burbank, California. 7-42

TRADE—LATEST REMINGTON 37, MARBLEGoss front and rear, very good. WANT—52 sporter, round top receiver, same condition. Examination privileges. Raymond Gelineau, Marion, Mass. 7-42

TRADE—22 LONG RIFLE M24 REMINGTON Automatic, perfect inside, good plus out; for 45 S. A. A. 5½", blue, excellent or better. Will pay small cash boot, or 45 S. & W. Model of 1917. D. B. Conley, Swampton, Ky. 7-42

TRADE—EXCELLENT 30S .257 PLUS $10.00 for 70, .257. Or sell for cash. C. J. Miller, Ord, Nebraska. 7-42

TRADE—COLT .45 AUTO, BUCHANAN'S ACcuracy job, match barrel excellent, special sights, trigger and back checked, trigger stop, reblued very good, extra clip, Heiser shoulder holster. WANT—Springfield D.C.M. Sporter. A. S. Cook, 61 E. Calaveras St., Altadena, Calif. 7-42

22 BOXES 7.62 RUSSIAN. TRADE FOR PRIMers and bullets, for Swift. T. R. Conrad, Indiana, Pa. 7-42

TRADE ONLY—REMINGTON SPORTSMAN, 20 Ga., 26" improved cylinder, new, for perfect S. & W. 38-44 Outdoorsman, or perfect Luger Carbine. George Jackson, 36 River Ave., Norwich, Conn. 7-42

WANTED

WANTED—ANTIQUE FIREARMS; POWder flasks, gun books. Will buy entire collections, cash. James Serven, Box 1777, Santa Ana, Calif. tf

U. S. GOV'T GUN SLINGS

CLOSING OUT! Brand new, extra heavy U. S. regulation gun slings. While they last 89¢; 2 for $1.75; 3 for $2.25. or all at discount. Money back guarantee. Also quantity telescopes, etc.

DuMaurier Co. Dept. 197 Elmira, N. Y.

WANTED—S. & W. .357 MAGNUM OR .38 OUTdoorsman or .38 S. & W. with heavy barrel and target sights. Very good or better. J. H. Caraway, 2240 MacArthur Blvd., Oakland, Calif. 7-42

WANTED—GUNS—ALL KINDS. 22 CAL., High Power, Revolvers and Shotguns. Give best cash price and accurate description first letter. The Jaymac Co., Jackson, Mich. tf

WANTED—WILL PAY CASH FOR COLT .22 Match Target Woodsman in excellent to perfect condition. Give details first letter. Howard W. Greene, #224 Duration Dormitories, Bremerton, Washington. 7-42

WANTED—COLT OFFICERS MODEL .38 HEAVY Barrel, perfect or excellent. State condition and price. Jack Hirst, 3637 Locust St., Philadelphia, Penna. 7-42

WANTED—HENSOLDT, DIALYTAN OR ZEISS ZIELVIER 4X Scope. Also Unertl, Lyman or Fecker 10 to 20X scope. Give complete description and price. P. C. Palmer, 144 North Avenue, Washington, Penna. 7-42

WANTED—COLT AND S. & W. REVOLVers, Automatic Pistols, .30-40 Krag Cartridges, .45-70 Cartridges, Springfield Rifles, Krag Rifles, Enfield Rifles, Cameras, any make. Warshal's, First-Madison-BB, Seattle, Wash. 7-42

WANTED—HIGHEST QUALITY THREE-BARrel gun, shotgun 12 gauge, 3" chamber, rifle .30-06 or .300 H. & H. Will consider only best German and British makes. Also want large bore double rifle. R. L. Harrison, Albuquerque, N. M. 7-42

WANTED—LYMAN #103 TANG PEEP Sights for any model rifle. Primers all sizes. Original Sight-Exchange, Paoli, Penna. 7-42

WANTED—Pay cash for excellent .30-06 Sedgley. Describe fully. Must be bargain. Edgar Sabin, 603 West 2nd Street, South, Newton, Iowa. 7-42

WANTED—2 BROWNING LIGHTNING Shotguns, one Pigeon or Midas grade and one Standard Grade, 26" barrels. Have two Parkers to trade or will pay cash. Also want light 12 gauge Francotte, 26" barrels. Morgan Holmes, Montvale, N. J. 7-42

WANTED—MODEL A HIGH STANDARD, 4½", perfect condition. C. H. Burris, 7721 Colfax, Chicago, Ill. 7-42

WANTED—MATCH TARGET WOODSMAN; state serial number, condition and lowest cash price. M. G. Denniston, Box 743, Wausau, Wisc. 7-42

WANTED—GOOD .257 ROBERTS RIFLE; CARtridges; telescope; 257 Reloading tools; No. 8½ primers; details; prices. Konrad Hartbauer, Boundary, Wash. 7-42

WANTED—I WILL PAY FULL PRICE PLUS cost of any extras for any grade Remington Model 81 in .300 Savage caliber. Must meet N.R.A. qualification, excellent or better. Anyone having one of these guns for sale before August 1st, notify me. Henry Davis, 309 South 22nd St., Richmond, Calif. 7-42

WANTED—HIGH STANDARD MODEL E, 4½". Perfect or excellent. Give price, condition, description. Robert Backhaus, 98 Rockwell, New Britain, Conn. 7-42

WANTED—CASH FOR ALL REVOLVERS and Automatics. Any caliber or make. Also Prism Binoculars. Galef & Son, 75 Chambers Street, New York. 7-42

WANTED—COLT MATCH TARGET OR 4½" Woodsman, state price and condition. Sell or trade, Savage Springfield Autoloader 16 ga. 28" full, leather case, excellent, $40.00. Elmer Ashelby, 3622 Lake Park Avenue, Chicago, Illinois. 7-42

WANTED—ANTIQUE ARMS. SINGLE pieces or entire collections. Wm. M. Locke, 3607 Ault Park Road, Cincinnati, Ohio. 9-42

WANTED—4½" TARGET MODEL WOODSMAN; K-22 Masterpiece; very good or better. Bill Dudley, Elizabeth City, N. C. 7-42

WANTED—NEW SPRINGFIELD ACTION. National Match and above 1,200,000. M. A. Smith, Box #43, Inspiration, Arizona. 7-42

WANTED—COLTS OFFICERS MODEL TARGET .22. Perfect condition. State price. Arthur Davis, 609 Rex St., Muncie, Indiana. 7-42

WANTED—OLD GUNS, SWORDS, ETC. Describe. State lowest prices. Cameron's Relic Castle, 431 No. State St., Chicago, Illinois. tf

WANTED —USED ZEISS PRISM BINOCULARS

6X, 7X, 8X, 10X Magnification. Also Zeiss rifle telescopes. CARL ZEISS, INC. 485 5th Ave., AR-5 New York, N. Y.

LYMAN TARGETSPOT SCOPES

LYMAN TARGETSPOT SCOPE, 8X or 10X. Proved performance on indoor and outdoor ranges. Mechanically and optically perfect. Easy parallax elimination. Adjustable to individual eye. Polaroid tested B. & L. lenses. **Free folder.**

LYMAN JR. TARGETSPOT, 2-purpose scope in **6X, 8X or 10X.** Optical and mechanical features same excellence as all Targetspots. Wide field. Small game, 'chucks and indoor target shooting. **Free folder.**

Now is the time to study the features of good equipment, to be prepared for the day when you are ready to buy and use it. Write for Lyman folders and catalogs.

THE LYMAN GUN SIGHT CORP., 90-S West St., Middlefield, Conn.

WANTED FOR CASH — SHOTGUNS, Rifles, Pistols and Revolvers. Can use all makes and types. Describe guns fully in first letter, state price, all mail answered. Big Ben Mercantile and Loan Co., 179 Third Street, San Francisco, Calif. tf

WANTED—8MM MOVIE OUTFIT WITH TURret, or quick change lens. Also cheap Binoculars, any condition. C. Streed, 1315 Harmon, Minneapolis, Minn. 7-42

WANTED—HIGHEST CASH PRICES PAID for Target Pistols, Revolvers, Rifles and Antique Guns of all kinds. Ship for estimate. Public Sport Shops, Dept. R-50, 13 S. 16th St., Philadelphia, Pa. 7-42

WANTED—WINCHESTER A-5 SCOPE IN VERY good condition. Reasonable. Wm. Lampke, Sisseton, S. Dak. 7-42

WANTED—RIFLES, SHOTGUNS, PISTOLS, Revolvers, Binoculars, Cameras and Projectors. We buy, sell and exchange all types of good used firearms and photo equipment. Just ship us what you have and we will send our check by return mail. Satisfaction guaranteed. M. & H. Sporting Goods Company, 512 Market Street, Philadelphia, Pa. (Established 1874) 7-42

WANTED—CASH FOR EXCELLENT M70 Swift, 257, Hornet or 23D. Alaskan, 330, mounts and components for above. J. Potter, 721F Alicia Walk, Akron, Ohio. 7-42

CASH FOR YOUR GUNS AND AMMUNItion. State lowest cash price and describe fully in first letter. All mail answered. Alliance Gun Exchange, 1405 S. Rockhill, Alliance, Ohio. 7-42

WANTED—REMINGTON MODEL 81 .300 SAVage and Weaver 330 Scope with tapered post reticule and type T-8 mount. Capt. Allan N. Johannesen, Company C, 10th Q.M. Training Regt., Camp Lee, Virginia. 7-42

WANTED—MATCH TARGET WOODSMAN 6½" patridge sights. Trade S. & W., M. & P. Target 6", blueing spotted otherwise good, for 38-44 Outdoorsman. H. W. Schroeder, 69 Plymouth St., Montclair, N. J. 7-42

WANTED—ANTIQUE ARMS, COLLECtions or single pieces purchased at fair prices. Give full description. Kimball Arms Co., Woburn, Mass. tf

WANTED—COLT 22-45 CONVERSION UNIT with floating chamber, complete. For converting Colt 45 Auto Government Issue to 22 Long Rifle. John Preli, 83 Palmer Ave., Stamford, Conn. 7-42

WANTED—ONE COLT AUTO .45 OR S. & W. Revolver .45. Lt. J. E. Burr, Co. D, 106th Inf., A.P.O. 960, c/o Postmaster, San Francisco, Calif. 7-42

WANTED—SPRINGFIELD ACTION OR SPRINGfield rifle, late number. Condition of stock and barrel not important, but action must be good. M. A. Smith, Box #43, Inspiration, Arizona. 7-42

WANTED—SINGLE ACTION .38, DETECTIVE Special, Single Action Army chambered .45 automatic cartridge. Perry Curson, 5340 Walnut St., Philadelphia, Penna. 7-42

WANTED—PISTOLS; ANTIQUE AND Modern. Will pay up to $35.00 or more for K-22, Ace, Match Target or 38 Special. $75.00 for 357 Magnum. Also want W-70 or other .30-06 Rifle. C. & B. Colts. T. A. Hawn, Box 35, Station A, Los Angeles, Calif. 9-42

CLEAN THAT GUN TODAY!

USE HOPPE'S NO. 9

Make sure your firearms (any kind) are free of primer, powder, lead, or metal fouling. Check them for rust. Use Hoppe's No. 9—the old dependable. Your gun dealer sells it or send 10c for sample and our complete "Gun Cleaning Guide". Or we'll send this book FREE to anyone who asks.

FRANK A. HOPPE, INC. 2321 N. 8th Street, Philadelphia, Pa.

POINTER STOCKS Molded in walnut and ebony for Colt Woodsman, Hi-Standard all models, $4.50. Colt and S & W $3.50 and $4.50. Molded in ivory 50¢ extra, for all models. At your dealer or direct. Send for illustrated circular.

WALTER MURAD 1006 El Camino, San Carlos, California

GUN-SMITHS!

NEW Parts List. Many new items including Frontier sear and bolt stop spring. Rem. Model 10 ejector spring; extractor spring, etc. Effective March 1st all list prices advanced 25%. Write for new lists.

CHRISTY'S GUN SHOP

874 57th St. Sacramento, California

WANTED—FOR CASH: AMMUNITION, any quantity, all calibres, write Public Sport Shop, Dept. R-50, 13 S. 16th St., Philadelphia, Pa. 7-42

WANTED—.22 COLT O.M.T., 6". EXCELLENT. W. Prince, 6515 Euclid Ave., Cleveland, Ohio. 7-42

WANTED—PRIMERS, FOR STATE GUARD REloading. Give description and price. Luther Arthur, P. O. Box 42, Huntington Beach, California. 7-42

WANTED—.303 ENFIELD BOX MAGAZINE. Extractor and bolt face for '88 Mauser. .38-70, .40-72, .45-75, .45-90, Winchesters, fair or better. Calvin Goddard, 3533 Quebec, Washington, D. C. 7-42

WANTED—COLT O.M., HEAVY BARREL, V.G. or better. All letters answered. E. G. Brust, 518 No. 11th Ave., Melrose Park, Ill. 7-42

WANTED FOR CASH—PRISM BINOCulars, Field Glasses, Microscopes, Sextants, Surveyors and Builders Levels. Give description and price in first letter, all mail answered. Big Ben Mercantile & Loan Co., 179 Third Street, San Francisco, Calif. tf

WANTED—HORNET PRIMERS. NEED VERY badly; all out. Will shooter with surplus please help out? Any reasonable price. Dr. F. W. Danby, 1103 W. Lincoln Ave., Milwaukee, Wisc. 7-42

—you will find

LYMAN SIGHTS

available for sportsmen featured by modern design and fine workmanship as in the past sixty-five years.

The Government's needs are heavy, but we suggest writing for special folders on items now available.

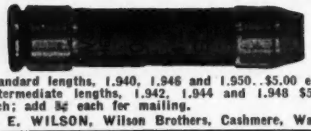
We'll serve you whenever possible.

No. 17A Hooded Target Front Sight. 9 interchangeable inserts. No. 77 Detachable Target Front Sight.

Send 10c for new Catalog.
Folder Free

LYMAN GUN SIGHT CORP.
90-M West Street
Middlefield, Conn.

.30-'06 HEADSPACE GAGES



Standard lengths, 1.940, 1.946 and 1.950..$5.00 each Intermediate lengths, 1.942, 1.944 and 1.948 $5.50 each; add 5¢ each for mailing.
L. E. WILSON, Wilson Brothers, Cashmere, Wash.

WANTED—ENFIELD AS ISSUED. STATE price and condition. M. J. Lowen, 260 Sedgwick Ave., Yonkers, N. Y. 7-42

WANTED—CASH PAID FOR ALL KINDS Guns, Rifles, Revolvers and Ammunition. Quote price when writing. Send stamp for used Gun List. H. E. Roehrs & Co., Closter, N. J. 8-42

WANTED—SHOTGUN, HIGH GRADE PARKER, Smith or Ithaca; Winchester Hornet; Colt Woodsman. Clarence Cubbedge, Orlando, Florida. 7-42

WANTED—CASH TO $500 EACH FOR YOUR fine and beautiful guns. Hershey's, Orrville, Ohio. 9-42

WANTED—COLT WOODSMAN 4½", WINCHESTER #12 Shotgun, 70-06 and standard #52, target scope preferably 15X or 20X, spotting scope, binocular, monocular, hunting rifle. All latest, describe. Cash for best offer July 15th. R. E. Raikko, 1804 South L, Tacoma, Wash. 7-42

WANTED—MODEL B HI-STANDARD, PAY $17.50. Model A, $22.50. Good Deer Gun. $15.00 for 32 Auto, Colt, Luger, etc., V.G. or better. A. E. Thompson, Marysville, Calif. 7-42

WANTED—PACIFIC DIES AND SEATERS FOR .22 Hornet and .38 Special; also sizer and lubricator for same. Lt. Kedric Pfeiffer, "A" 55th Bn., FA, Camp Roberts, Calif. 7-42

WANTED—WILL PAY UP TO 45¢ PER 100 FOR large rifle and pistol primers, any make. C. E. Albridge, 718 Greenlawn, Lima, Ohio. 7-42

WANTED—22 CALIBRE WOTKYNS-MORSE OR Sisk Bullets. All weights. Lyman Alaskan Scope. For cash. W. J. Holliday, Hammond, Indiana. 7-42

WANTED—AS ISSUED 30-06 RIFLES FOR Texas Defense Guard. George O. Jones, Waco, Texas. 7-42

★ ★ ★ ★ ★ ★ ★

YOUR Navy Needs
BINOCULARS
For IMMEDIATE Use

Bausch & Lomb or Zeiss, 6 x 30 and 7 x 50 binoculars, are urgently needed by the United States Navy.

These are the *only* sizes and makes now required for immediate service.

Such binoculars will either be purchased outright, or will be accepted for "loan" at $1.00 per pair for use until the end of the present hostilities.

Perfect condition preferred, but minor repairs can be made when frames or lenses are not broken or cracked.

Attach tag on instrument marked carefully with complete name and address; pack securely, with carrying case, in heavy cardboard box; ship by insured parcel post or prepaid express to

U. S. Naval Observatory, Washington, D. C.
This space donated by THE AMERICAN RIFLEMAN

★ ★ ★ ★ ★ ★ ★

Turner Instant Detachable Scope Mount

More desirable features than any other mount.
GEO. K. TURNER **Eagle Nest, N. M.**

WANTED—WE NEED HANDGUNS, 38 SPECials, 45's, 380's, etc., and .06 or other heavy caliber Rifles for guard duty, etc. Give top prices, rush. $7.50 for few big primers. Wm. Veazy Hdwe. Co., 3275 University Ave., San Diego, Calif. 7-42

WANTED—MARLIN 39, CASH OR TRADE 38, 63, 12 ga., all good. M. R. Ebersole, Hooker, Oklahoma. 7-42

WANTED—45, 5½" BISLEY, PERFECT IN, EXcellent or better out. Original finish. C. H. Larisch, 706 Clybourn Ave., Burbank, Calif. 7-42

WANTED—OFFICERS MODEL 38, SPRINGfield receiver, Colt 45 Automatic receiver, late 30-06 ammunition, small pistol primers, Hornet cases. Carl Lindahl, 180 North Wabash, Chicago. 7-42

WANTED—PERFECT 7MM RIFLE OR BARREL, large caliber Model 95 Winchester, 6.50 or 7.00 x 15 tires. Lloyd Bender, Galion, Ohio. 7-42

WANTED—FOR GEORGIA STATE GUARD, locks for old German Maxim-type Machine Guns. Lt. Col. Mark A. Cooper, Georgia State Guard, Rome, Ga. 7-42

WANTED—BARGAIN: REMINGTON OVER and Under, 12 gauge Skeet, 26 inch. Condition A1, Excellent. Dr. E. J. Tietjen, 510 Central Trust Bldg., Jefferson City, Mo. 7-42

WANTED—TARGET PISTOL OR REVOLVER, Winchester 52 Standard. Have 75 Winchester Sporter, 75 Target. Ray Guthrie, 342 W. Campbell Ave., Roanoke, Va. 7-42

WANTED—COLTS: DETECTIVE SPECIAL; Woodsman, 4½; National Match; Ace; Match Target—all excellent to perfect and new models—cash—all letters answered. Justin Doucett, 14 Bay Rd., Revere, Mass. 7-42

WANTED—PERFECT .270 MAGNUM ENFIELD (300 Magnum case), heavy barrel, stock immaterial. Enfield and Mauser set-trigger actions. Charles Magnante, 120 Cabrini Blvd., New York, N. Y. 7-42

WANTED—57 WINCHESTER OR STEVENS 418, or target rifle cut down for child of 7. Emmett Studebaker, Tipp City, Ohio. 7-42

WANTED—CASH PAID FOR WRECKED or broken high grade shotguns and rifles, also want extra barrels for Lefevers, Smiths, Ithacas and Remingtons. The Egyptian Gun Shop, Cambria, Illinois. 7-42

WANTED—MODERN, WORLD WAR AND Antique Gun Parts and Rifle Stocks. Write. State what you have and price. Thomas A. Greeley, 67 Palm Street, Newark, N. J. 7-42

WANTED—ALASKAN OR WEAVER FOR Springfield, 357 Magnum, Woodsman, High Standard 4½, K-22, Outdoorsman, Winchester Hornet. Almon Williams, Berea, Ohio. 7-42

WANTED—22 CAL. REVOLVERS, AUTOmatics, Primers, Pistol and Rifle. Any amount. All letters answered. Cleveland's, 219 E. Third, Long Beach, Calif. 7-42

WANTED—.30-06 RIFLES, 38 SPECIAL O.M. 6 inch barrel. Primers: N.C.N.M. pistol and large rifle. Potter 30-06 dies. SELL: Winchester 70 barrel and stock only, 30-06, excellent, $15.00. Lt. Guy W. Stonestreet, 1302D Service Unit, Fort George G. Meade, Md. 7-42

WANTED—COLT POLICE POSITIVE TARGET .22, embedded head cylinder, very good or better. State price. William Beichler, Dept. of Conservation, Raleigh, N. C. 7-42

WANTED—35 MM Camera; Contax, Leica, Robot, Retina, Welti, Argus or other. T. A. Hawn, Box 35, Station A, Los Angeles, Calif. 9-42

WANTED—NATIONAL MATCH SPRINGFIELD, excellent to perfect, prefer pistol-grip type stock. W. H. Janssen, Nokomis, Ill. 7-42

WANTED—WINCHESTER MODEL 70, .220 Swift. Arthur V. Schweidler, 1301 Center St., Lafayette, Indiana. 7-42

WANTED—SAVAGE M-219, HORNET, 25-20, or barrels only. Marlin .410, .22. Wallace Getman, Camas, Wn. 7-42

WANTED—CASH PAID FOR ANTIQUE Firearms, Lugers, Mausers, 45 Colt S.A., World War Rifles, Bladed Weapons, Cased Colts, Derringers. Robert Abels, 860 Lexington Avenue, New York. 7-42

TRADING POST

Bargain lists and announcements by the makers and distributors of everything used by gun enthusiasts, active outdoorsmen and sportsmen collectors. New advertisers are required to furnish at least one bank and two business references. We believe they are all straight shooters and thoroughly reputable, but we request an immediate report of any unsatisfactory dealings.

FIREARMS—GENERAL

WINCHESTER 86, 45-90 caliber, 24" Octagon solid frame checkered pistol grip and forearm, about excellent, $45.00. Hudson, R-52 Warren Street, New York. 7-42

USED RIFLES. ENFIELD CAL. 405 BOLT Action rebuilt by Winchester, checkered stock, with cheekpiece, Redfield receiver sights, Lyman bead front, sling strap, like new, $100.00. Winchester Auto Loading Cal. 351, Model 07, excellent condition, $45.00. Ross Sporter Cal. 280, cheek piece stock, pistol grip, bead front, leaf rear and peep receiver, excellent condition, $42.50. Winchester Model 94 cal. 25-20, excellent used condition, $22.50 each. Remington Single Shot Rolling Block Carbines, 30 Cal., fine condition, $12.50. Shot Guns 12 Gauge Savage Over and Under, fine condition, $30.00. Public Sport Shops, Dept. R-50, 13 S. 16th St., Philadelphia, Pa. 7-42

AMMUNITION: WE HAVE A LARGE stock of the following special cartridges. Write for price and quantity wanted. Mauser 10x75; 9x70; 360/57/8; 7x57; 88/66/6; Rigbys 450; Cordite 450; Bullard 40/90/300; Rem. Hepburn 38-50; 45/85 Express. Galef & Son, 75 Chambers Street, New York. 7-42

81 35 CAL. REMINGTON, AS NEW, $77.50. Fox A. E. Single Trigger 12 Ga., good, $85.00. Remington Double 12, fair, $30.00. Fox Sterlingworth 12, fair, $35.00. Fox Single Trap, excellent, $95.00. J. P. Sauer 12 Ga. Knockabout, 26 inch, 6¾ lbs., good, $100.00. Parker V. H., V. G., 12, single trigger, 26 inch, $100.00. B.S.A., 22-3000 2-R Lovell, bbl. by Gebby, $75.00. Winchester 218 Bee, very good, $45.00. Winchester Model 53, 25-20, very good, $45.00. Enfield-Winchester .30-06, 48W and 17A, excellent, cheek piece stock, $70.00. Model 95 Win. 30-06 Carbine, good $50.00; same in Krag, fair, $35.00. Springfield 30-06, fancy stock, cheek piece and scope and 48W rear, fair, $60.00. 2 High Side Walls 32-40, $15.00 each. Savage Sporter 32-20, Lyman peep, fair, $30.00. Pfluger Supreme Reel, V.G., $20.00. Winchester 10 Ga. Lever, poor, $15.00. 25-32, 38, 380 Colt Autos, $20.00 each. S. & W. Model 1917, 45 Cal., $30.00. Other guns too numerous to mention. Good guns bought. H. L. White, 13 Church Street, Burlington, Vt. 7-42

LIST READY, 300 HUNTING AND TARGET Guns, used and new. Sudden delivery Rifle Scopes, etc. Sudden delivery. Stamp. Hershey's, Orrville, Ohio. 8-42

CATALOG OF MODERN AND ANTIQUE Guns, Swords, Ammunition, Armor, War Relics. 500 Illustrations, 1500 items. 20¢. Thomas Woroniecki, 1029B Northern Blvd., Roslyn, N. Y. 7-42

REMINGTON MODEL 8D PEERLESS Grade Automatic 35 caliber, tang sight, excellent, $120.00. Hudson, R-52 Warren Street, New York. 7-42

NEW GUNS: WINCHESTERS, MODEL 70 in .257, 220 Swift, .22 Hornet, $78.45, Model 71 .348 (less sling), $65.00, Model 65 .218 Bee, peep sight, $56.85, Model 64 30-30 and 32 Special (less sling), $61.50, Model 64 Deer Rifle 30-30 and 32 Special, $74.70, Model 94 30-30 and 32 Special, $41.00, Model 52 less sights, $56.95, Model 07 Auto .351, $88.00. Savages, Model 99EG .300, $61.75, Model 23D .22 Hornet, $42.50. Remingtons, Pump Model 141 .35 Rem. and .32 Rem., $69.95, Model 81 Auto .32 Rem., $88.10. Browning Auto Shotguns 20 ga., $68.00, Ithaca Model 37 Pump Repeater 20 ga., $56.70, Rem. Auto 20 ga., $68.00, Rem. .22 Rifles, Models 512, 510, 550 Auto, 241, 121. Winchester Models 67, 68, 69, 74, 72. Savage Models 7, 7S. 6, 5. All in stock for immediate shipment, write for prices. Used Guns: Winchester Model 64, .219 Zipper, peep sight, like new, $59.50, Winchester Model 52 Bull Gun, like new, shopworn, no sights, $75.00, Winchester Model 70 30-06, like new, $75.00, Remington 12 Ga. Auto, like new, $57.50, Browning 16 ga. Belgium made, new condition, $79.50, Browning Over-Under twin triggers, raised rib, $75.00, Browning Over-Under single trigger, raised rib, like new, $92.50, Winchester Pump Model 12 16 ga. with Polychoke, like new, $65.00. 500 other new and used guns to pick from, advise us your needs. All new guns will be shipped prepaid. Lyman Targetspot 10X, $68.00. Lyman Jr. Targetspot 8 or 10X, $55.00. Lyman Stag Hunting Scope with mount and bases to fit Model 70 Winchester and Springfield Rifles, $55.00. Al Susser, Sporting Goods, 52 State Street, Albany, New York. 7-42

8MM MAUSER SPORTER, 7.62 RUSSIAN Sporter. 45-70 Sharps Borchard, 45-70 Win. Hotchkiss, 45-70 Springfield Sporter, 32-40 Hi-Side Win., 44-90 Heavy Sharps Side Hammer, 40-45 Remington-Hepburn complete with cases and tools, 22 cal. H.B. Stevens, Duellers, Relics and Decorators. Derryhoyle House, Evergreen Rd., Natick, Mass. 7-42

45 COLT S. A. FRONTIER MODEL 7½", like new, $47.50. 45 Colt Auto Model 1905, fine condition, $35.00. 38 S. & W. Outdoorsman, like new, $69.50. Colt Dragoon, 1st Model reblued, fine condition, $50.00. Mauser, 32 calibre Automatic Pistols, excellent condition, $25.00. Buffalo 32, Auto 8 Shot Spanish, excellent condition, while they last, $15.00. Public Sport Shops, Dept. R-50, 13 S. 16th St., Philadelphia, Pa. 7-42

IMPERIAL GRADE ENGLISH, OGDEN, Smits and Hussey, Over and Under, 12-26 M&F, automatic ejector, finely engraved, with leather trunk case, like new, $425.00. Hudson, R-52 Warren Street, New York. 7-42

FOR SALE: COLT ACE, EXCELLENT, $47.50. Colt 45 Automatic, good, $28.00. Colt New Service 45, 7" barrel, nickeled, excellent, $35.00. Mauser 25, Automatic, perfect, $23.00. 9mm Mauser Automatic, good, $40.00. 9mm D.W.M. Luger, 8" barrel, excellent, $45.00. 7.65mm Luger, D.W.M., 4" barrel, excellent, $28.00. Webley 455 Mark VI, excellent, $40.00. French Service 8mm. Revolver, excellent, $35.00. 280 Ross Sporter, excellent, $35.00. Sharps Borchardt, 45-70, excellent, $23.00. Kar '88, good, $25.00, Kar '98, excellent, $28.00; another, good, $24.00. 8mm Lebel M1907-15, excellent, $22.00. Austrian Mannlicher, 8mm, good, with 40 cartridges, $22.50. Issue Krag, fair, $15.00. Lee Metford, excellent, $32.00. Lee Navy 6mm, no extractor, excellent, $14.00. 45-70 Hotchkiss Carbine, excellent, $20.00. Peabody Carbine, perfect, 50 Spencer cartridge, $10.00. Latest catalog illustrating 500 items, listing over 1500 items, including guns, swords, armor, ammunition, insignia, buttons, etc., ready for mailing, 20¢. Thomas Woroniecki, 1029A Northern Boulevard, Roslyn, N. Y. 7-42

WE BUY USED RIFLES, SHOTGUNS, REvolvers, Pistols. Lou J. Eppinger, Inc., Sportsmen's Outfitters, 131 Cadillac Square, Detroit, Michigan. 7-42

WINCHESTER 70 BULL GUN, 300 H. & H. Magnum, 48 Lyman, 77 front, perfect, $140.00. Hudson, R-52 Warren Street, New York. 7-42

AMMUNITION & RELOADING SUPPLIES

BULLET MOULDS. SEND STAMP FOR latest circular. Hensley & Gibbs, 2692 E Street, San Diego, Calif. tf

GUNS + AMMO

Sloan's Offer—Immediate Delivery—New Factory Packed Guns—Reasonable Quantity Ammunition with Each Gun—First Come—First Served

Win. Model 64—219 Zipper, Peep	$66.85
Win. Model 70—257 Roberts	78.45
Win. Model 70—Super 257 Roberts—48WJS	122.00
Win. Model 70—7 M M	78.45
Win. Model 70—Super—7 M M—48WJS	122.00
Win. Model 61—22 W.R.F., Octagon Bbl.	34.05
Win. Model 71—348	65.15
Win. 52—Standard Bbl. Mks. #1 Stock Marble-Goss-Lyman 17A	76.30
Remington—512A—22 Cal.	18.40
Remington—512P—22 Cal.	19.30
Remington—141A—35 Cal.	69.95
Remington Sportsman Skeet Grade Vent. Rib 12/26, Skeet bore and 30" full choke	94.40
M.&R. Defender—Model 25—38 Cal. Reg., 4" Bbl Blue Finish—Purchased by Auxiliary Police	32.50

AMMUNITION

22 Long Rifle, Peters Outdoor Tackhole Lesmok, Per M	9.60
219 Zipper, Western, Per 100	6.56
257 Roberts, Win. & West—100, 117 Gr. Per 100	9.08
7 M/M Mauser, Rem. Kleanbore, 139 Pointed, 175 Metal Case, Per 100	9.64
22 W.R.F. Win. & West, Per 100	1.12
44 S.&W. Russian Metal Point Kleanbore Per 100	4.34
44 S.&W. Special Metal Point Kleanbore Per 100	4.54

No Catalogs—Order Today—Deposit on C.O.D.

SLOAN'S SPORTING GOODS CO. 88 CHAMBERS ST., N. Y. C.

BADGER'S NEW CATALOG!

Catalog No. 10 just off the press—Free, drop us a penny card and you'll get yours! (Catalogs already mailed to our permanent list)—

BADGER SHOOTERS SUPPLY
Owen, Wisconsin
"SURE WE TRADE"

PRECISION HAND LOADED AMMUNition for Vermin, Small Game. Reloading, Shooters' Supplies. List. M. Pecha, Acushnet Ave., Worcester, Mass. 8-42

22 WRF WINCHESTER SMOKELESS, 75¢ per 100. 22 Super X Short Smokeless, $2.50 per carton 500. 32 Long Colt Cartridges, $3.75 per carton of 250. 45 Auto Cartridge F. A. late issue, $4.50 per hundred. .30-06 F. A. Metal Point Cartridges, good condition, $4.50 per hundred. Remington Cartridges 32 S. L. Soft Point, $4.00 per hundred. 10 Gauge Shotgun Shell, Winchester Smokeless BB Shot and #1, 75¢ per box. Public Sport Shops, Dept. R-50, 13 S. 16th St., Philadelphia, Pa. 7-42

LIMITED QUANTITY FRANKFORD ARsenal regular 98 issue 30-40 Krag cartridges in original boxes, $5.00 per 100. Not less than 100 sold. Kimball Arms Company, Woburn, Mass. tf

IPCO COLLOIDAL GREASE WADS (RIBbon form) are an investment in better groups; furnish a gas seal, retarding erosion, lubricating barrel throat. Donaldson sponsors Ipco Wads in his new conversions. Ipco Colloidal Bullet Lubricant insures barrel protection, retarding or eliminating fouling. Box $1.00 del. No resale discounts. Industrial Products, 102 Pearl, Boston, Mass. 7-42

FINE CAST BULLETS. MY LINE OF H. P. bullets very effective on game. Guy Loverin, Lancaster, Mass. 7-42

LIST #404 SINGLE SPECIMENS FOR THE Cartridge Collector, 20¢ coin. Big list Shooters Ammunition, 20¢ coin. List of empty shells, wads, old style primers for shot shell reloaders, 10¢ coin. Japanese Hunting License, 10¢. Chas. Shattuck, Cherry Creek, N. Y. 7-42

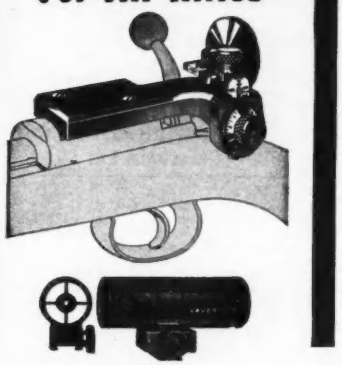
DUPONT POWDERS 4227, 4198, 4064, 4320, 4350, 3031, $1.75 pound. 4759 and 6, $1.10 half pound. All Hercules powders in stock. Send explosives license with order. I still have some odds and ends left in bullets, cases, reloading tools and etc. No list. State your exact needs. Stamp appreciated. Leslie M. Lindahl, Central City, Nebraska. 7-42

PACIFIC RELOADING TOOLS IN TRADE for used rifles and pistols, modern or antique. Address Exchange Dept., Pacific Gun Sight Co., 373 Hayes St., San Francisco, Calif. tf

VAVER

DIAL MICROMETER SIGHTS

For All Rifles

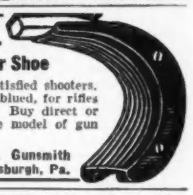


To The Shooting Fraternity:

Winning the war is the first job of every American. The Vaver Sight Co. having devoted its facilities to war production is finding it increasingly difficult to maintain deliveries. To the users of Vaver Sights we ask your indulgence in this situation and assure you that orders will be given as prompt attention as is humanly possible. Kindly do not send remittance with orders.

VAVER SIGHT CO.
4306 W. 24th Place • Chicago, Illinois

BEAVERTAIL
The Original Trigger Shoe



10,000 now in use by satisfied shooters. Milled from solid steel and blued, for rifles and pistols. **Price, $1.50.** Buy direct or through your dealer. State model of gun when ordering.

HARVEY E. HENSHAW, Gunsmith
818 Oakwood St., (21), Pittsburgh, Pa.

150 LBS. PRINTERS' TYPE METAL, CASTS hard bullets, or for mixing with softer metal. 10 lbs. $2.00, 25 lbs. or more, 18¢ lb. WANT—to buy: Good to excellent issue Enfield, or high serial Springfield. Myron Harshman, 353 Greenfield, Tiffin, Ohio. 7-42

DUPONT IMR POWDERS POUND $1.60. #6 Pistol, 4759 Rifle 8 oz. $1.00. Hercules #2400 pound $1.50. WANTED—Primers, any size. Arthur E. Anderson, Fullerton, N. Dak. 7-42

GUNSMITHING & SUPPLIES

CHECKERING TOOLS, HAND MADE BY checkering expert. Set of three—Checker, Border and Cleaner; also directions, complete, $2.75 postpaid. Warner's, 354 Hamilton Avenue, Norwich, Conn. tf

FIGURED WALNUT RIFLE BLANKS FROM $3.50. Specials from $10.00. Every blank guaranteed. Delivered free. Horn tips, 50¢. Mitchell Bosley Co., Ltd., Little Shadwell Street, Birmingham, England. 3-43

BEST QUALITY PENNSYLVANIA BLACK Walnut Blanks. Air-Dried: Rifle size 32x2½" thick, $2.50 to $6.00; Shot Gun size, .75 cts. to $2.00. Flaig's Hunters Lodge, Millvale, Pa. 7-42

"ATTENTION, SHOOTERS." SEND US your gun work. We rebore and convert your rifles and make them like new. Send us your model 8 or 81 Remington Automatic, any calibers, to be converted to the .300 caliber cartridge. We are the original designers of this caliber rifle. We also make Luger and Mauser pistol barrels. Troeh's Sporting Goods, Inc., Eugene, Oregon. tf

ANTIQUE ARMS REPAIRED. WE MAKE springs and missing parts. Fine stock restorations. Kimball Arms Co., Woburn, Mass. tf

SHOOTING EQUIPMENT

for immediate delivery

Model 720 Rem. 270 cal. 24", $78.40; Model 37 AR. 22 cal., $87.70; Model 121 Rem., 22 cal., $32.50; Model 52 Win. 28 cal., $80.35. Marble-Goss; Model 99EG Sav., 300 cal., $61.75, 17A Lyman. 100 Yard Targets, Cardboard, $1.25 100; 50 Yard Targets, Double Bull, $.75 100; 50 Foot Targets, Five Bull, $.60 100. (Special prices on lots of 1000.) B&L Ray-Ban Shooting Glasses, $12.50; B&L Sun Glasses 1/10 12 K. Gold Filled, $7.75; B&L Ray Ban Stroller, $4.75; B&L Ray Ban Hook Over, $4.75; 10X Aristocrat Shooting Coat, $7.50; 10X Imperial Shooting Coat, $9.50; 10X Shooting Glove, $2.50. Above all prepaid.

Flaig's Hunters Lodge

MILLVALE, PA.

YOUR 99 SAVAGE CONVERTED TO 300 Savage caliber. .30-06 changed to 300 Magnum $20.00. Enfield to cock on opening, $5.00. Custom stocks. Remodeling. Blueing. Bayer's Gun Shop, Walla Walla, Wash. tf

ARMY RIFLE PARTS: STRIPPED KRAG Bolts, $3.00, Rec. $3.50; Stripped Enfield bolts, $2.50, complete $5.00; New Enfield extractors, $1.25, firing pins, $1.00, ejectors, 60¢; Springfield stripped bolts $3.00, complete $5.50; extractors $1.00; ejectors, 40¢; firing pins, 75¢; complete front sight, $1.00, dozen lots $9.00; New Springfield sporter barrels, $12.50, 24". Flaig's Hunters Lodge, Millvale, Pa. 7-42

SHOT PISTOLS—22 CAL. SHOT BARREL on your Revolver. 8" pattern 20 ft. guaranteed, $8.00 to $10.00 sighted in. Also 45 Shot barrels. Write for information. Wright's Gun Shop, Bloomsburg, Penna. 7-42

BINOCULARS, SCOPES, SIGHTS & CAMERAS

BINOCULARS CLEANED AND REPAIRED. Established 1925. Alignment corrected to 1/1000 radian on our special collimator. Mail your glass for estimate. Mirakel Optical Co., Mount Vernon, N. Y. 11-42

WE BUY, SELL AND TRADE IN ALL makes of Field Glasses and Binoculars. Repair work guaranteed. Catalog. J. Alden Loring, Box 32, O-we-go, N. Y. tf

RIFLE TELESCOPES FOR HUNTING AND target. Catalog free. Malcolm Rifle Telescope Co., Auburn, N. Y. 9-42

"TACKHOLE DOT" — THE FLOATING Center round dot reticules for target scopes, $5.00, Weaver 330-440, $6.00, and all other hunting scopes $10.00 installed. Endorsed America's greatest shots, guides, hunters. Guaranteed. Prompt Service. Write for literature. T. K. Lee, Birmingham, Ala. 11-42

BINOCULARS WANTED: GENUINE Prism, any make. We also do repairing. Galef & Son, 75 Chambers Street, New York. 7-42

ZEISS REGULAR WEIGHTS 8x30 DELtrintem, $99.00, 6x30 Silvarem, $88.00, 6x24 Telex, $66.00. Cases, tax included. Excellent condition. H. Stern, 872 Sixth Avenue, New York. 7-42

PRISMATIC TELESCOPE, 26 POWER, 3½" clear objective. Marvelous for team captain, spotting, observation, etc. Take $135.00. Fraction of original cost. Also 3" prism binocular telescope. Details free. DuMaurier Binocular Manufacturers, Elmira, N. Y. 7-42

ACCESSORIES

CASWELL TARGET CARRIERS GIVE THE shooter every possible point because they hold the target steady and require no exertion to operate. Fully equipped with speedy ball-bearing pulley wheels and target holders for every type of indoor paper rifle or pistol targets. Caswell Target Carriers, Anoka, Minnesota. tf

GRIP-ADAPTER. THE "SLIP-ON" GRIP adapter for revolvers $1.00. Full description upon request. Ordnance Service Co., Box 36, Station F, New York, N. Y. tf

RIFLE CLUBS: LOWEST PRICES ON Official N. R. A. Outdoor Tournament Targets. Lee Floating Center Dots for All Targetscopes, $5.00. T. G. Crain, 916 Race St., Altoona, Penna. 7-42

NEW COLT 45 AUTOMATIC MAGAZINES, $1.65; barrels, $3.95, postpaid. Hudson, R-52 Warren Street, New York. 7-42

NEW LIVE LEATHER GOVERNMENT 1¼" Sling Straps, $1.00. Hudson, R-52 Warren Street, New York. 7-42

GENUINE PEARL, IVORY AND STAG REvolver and Pistol grips, plain or carved, send for free price list A. Frank Mittermeier, 3577 E. Tremont Ave., New York, N. Y. 7-42

ANTIQUES & CURIOS

ANTIQUE FIREARMS. LARGE STOCK. Send 25¢ for next three large lists. Also Percussion Colt Parts. C. Weisz, 2412 Northland Ave., Overland, Missouri. 1-43

5 PERFECT FLINT ARROWHEADS, 20¢; 4 perfect Flint birdpoints, 20¢. 30 different named minerals, $1.00. Curios and pistols. Catalog 5¢. Lemley Curio Store, Osborne, Kansas. tf

INDIAN RELICS, CONFEDERATE BILLS, coins, minerals, gems, fossils, crystals. Illustrated catalog, 5¢. 100 ancient arrowheads $3.00. H. Daniel, Hot Springs, Ark. tf

ANTIQUE FIRE ARMS. LIST DESCRIBing over 300 now ready. 15¢. Wm. Locke, 3607 Ault Park Road, Cincinnati, Ohio. 7-42

LARGE STOCK OF AMERICAN AND European antique arms. Send 10¢ coin for latest 8th edition 36 page catalog. Antique arms wanted. We buy single pieces or collections. Fair prices paid. Kimball Arms Company, Woburn, Mass. tf

PRE-HISTORIC STONE TOMAHAWK, 75¢. 100 good pre-historic Arrowheads, $3.00. 10 tiny perfect bird arrows, $1.00. Spearhead, 25¢. List free. Caddo Trading Post, Glenwood, Arkansas. tf

NEW LIST OF OVER 500 PIECES READY. 10¢. Kentuckies, Military, Sporting, and Pistols. T. J. Cooper, R#7, Meadville, Penna. 7-42

FINE SIOUX INDIAN BEADED, FRINGED, buckskin scout coat, $20.00. Eagle feather beaded war bonnet, $9.00. Catalog of relics, novelties, 5¢. Sistershop, Northbranch, Kansas. 7-42

ANTIQUE FIREARMS, BLADED Weapons, European. Oriental, Den decorations. Catalog 10¢. Robert Abels Shop, 860 Lexington Ave., New York, N. Y. 7-42

PATENTS

PATENTS—LOW COST. EASY TERMS. Book and information free. Highest references. L. F. Randolph, Dept. 370, 416 5th St., Washington, D. C. tf

MISCELLANEOUS

SALE OF SURPLUS GOVERNMENT Goods. Springfield Rifle Sling Straps, brand new, $1.25; Swivels 75¢ per pair; Leather Slings, A-1 condition, 50¢; Springfield Sight Gauges, $1.00; .30-06 Empty Brass Cases, 75¢ per hundred; Brass Clips for 30-06 Cartridges, $2.00 per hundred; Canvas Canteen Covers, fine condition, 25¢. Public Sport Shops, Dept. R-50, 13 S. 16th St., Philadelphia, Pa. 7-42

MOUNTED BIRDS, ELK, MOOSE, BUFfalo, Polar Bear, Tiger, Horns. Glass eyes, supplies. M. J. Hoffman Co., 982-A Gates, Brooklyn, N. Y. 9-42

SHOT GUN COVERS ALL LENGTHS, leather trimmed, $1.00. Precision Barometers, values up to $12.00, brand new, special sale $4.95. Household Thermometers, new 75¢ value, brand new, 25¢. Physicians Thermometers, pocket style with case, brand new, 4 for $1.00. Gun Oil, 1-oz. bottles, 15¢ each, $1.50 per dozen. Heavy Canvas Leggings, 49¢ per pair. Public Sport Shops, Dept. R-50, 13 S. 16th St., Philadelphia, Pa. 7-42

RECEIVED TOO LATE TO CLASSIFY

FOR SALE—9MM DWM LUGER 8", VERY good, holster, two magazines, $40.00; 20 Single Iver Johnson Champion, very good, $5.00; 12 single Stevens, very good, $5.00; .22 Model 90 Winchester, good, $7.00; .22 Marlin Lever, good, $6.00; .45 Colt Frontier 4½, good, $10.00; 300, .30-'06 1918 3¢, 180 .30-06 1934 5¢, 200 .45 A.C.P. 4¢. WANT—Colt Ace, pay cash. Roy Craig, Hiawatha, Kansas. 7-42

WANT—.22 RIFLE FOR OFFHAND TARGET Shooting. Winchester S.S., Stevens 417½ or similar. Must be very accurate and excellent to perfect. Describe fully and state price. J. R. Bodler, USS Regulus, C/o Postmaster, San Francisco. 7-42

GENERAL ELECTRIC TRANSFORMER, 8750 volts @ 40 millamps, 2 condensors, 21 inch testa coil secondary. Sell, trade. Neil Terhune, Paxton, Nebr. 7-42

TRADE—NEW WINCHESTER M/70 HORnets for Guns, Cameras, or Binoculars, Etc. Warshal's, First-Madison-BB, Seattle. 7-42

WANTED—TWENTY DOUBLE, GIVE MAKE model, barrel, boring, length and price. W. Turgeon, Oklee, Minn. 7-42

ARGUS 20X, BADGER STAND, PERFECT, $58.00; Coat (40), $4.50; what have you? Walter Brooks, R. 4, Box 78, Terre Haute, Ind. 7-42

REMINGTON M-121 S FIELD MASTER, .22 cal.; Remington Special Cartridge Slide Action Repeating Rifle. Perfect condition, $27.50 money order. John Bucholz, 6610 Prairie Avenue, Omaha, Nebraska. 7-42

FOR SALE ONLY—ITHACA 4E DOUBLE 30 full choke vent, rib S.S. trigger, beaver forearm 2¼ x 13¾, very good to excellent, $125.00; Springfield sporter 48 rear, ramp front, Extra high Monte Carlo stock, excellent, $80.00; National Match .45 Colt Auto, Excellent $70.00; Government 1917 Smith & Wesson, .45, very good, $20.00. W. H. Hilt, Bern, Kansas. 7-42

WANT—MAUSER ACTIONS AND RIFLES, stocks and barrels unimportant. George Zimmerman, 1108 Euclid, Bristol, Virginia. 7-42

FOR SALE—WESTERN FIELD, AUTOMATIC 12 Ga., 28", Full, Ribbed, New, $60.00. Winchester Model #92 .38-40, Carbine, $25.00; No Trades. A. L. Brause, Box 36, Calpet, Wyoming. 7-42

RIFLE AND GUNSTOCK BLANKS IN FOLlowing woods: American Walnut cut from crotch and stump figure. Circassian Walnut. Extra fancy Oregon Myrtle, beautiful figure, and Bird's Eye Maple. Wholesaler with sawmill supervision insuring right grain in grip. Cheapest prices obtainable. Special inletting service to gunsmiths. D. W. Thomas, Box 184, Vineland, N. J. 7-42

FOR SALE OR TRADE—REMINGTON 30S 30.06 L48 Excellent Out, Perfect In, $60.00. Want—28 Gauge or .410 Skeet Model 12, 42 or O/U. J. Batson, 5607 Southwick, Bethesda, Md. 7-42

WANT—19-SAVAGE K-HORNET; COLT, S. & W. target pistol. Wm. Park, Box 1147, New London, Conn. 7-42

MOUNTED MOOSE HEAD, SPLENDID ANTlers; also Elk, similar. Best offer or trade for rifle, scope, Woodsman, etc. Photo, 10¢. H. Covey, Ascutney Blvd., Windsor, Vermont. 7-42

300 SAVAGE, VERY GOOD TO EXCELLENT. $50.00. First money order. R. Kistler, 1401 Midvale, W. Los Angeles, Calif. 7-42

REMINGTON 37 #01537 COMPLETE, FIRED less than 200 rounds, $60.00. WANT—Deer Rifle and Shotgun. Andrew Kenney, 7913 Inglenook, Pittsburgh, Penna. 7-42

REMINGTON SPORTSMAN AUTOMATIC 16, compensator, very good, $65.00. B. & L. Draw Tube, Freeland stand, extra extensions and box attachment, factory carton, $35.00. Arvid Hamrick, Kewanee, Illinois. 7-42

S. & W. .22-32, SPECIAL SIGHT, ADAPTER, excellent condition, with shoulder holster, $30.00. Ship C.O.D. Dr. C. G. D'Oench, 607 N. Grand, St. Louis Mo. 7-42

FOR SALE: 250-3000 SAVAGE MODEL 99-EG, excellent, Marble rear, sling, fired 20 rounds. New last fall. $55.00. Lucien Brault, 110 So. Catherine, Plattsburg, N. Y. 7-42

WANTED—ATLAS LATHE ACCESSORIES, independent chuck, taper attachment, grinder, or anything which can be adapted to same. Also small machines and tools. Cash or will trade for items from my list. Martin Retting, Shokan, N. Y. 7-42

WANTED—R-2 LOVELL CARTRIDGES, CASES. N.M.N.C. primers 6½, 1½ or similar. Top prices. J. Hallgrimsson, 47 St. Mary's St., Brookline, Mass. 7-42

SELL: SPRINGFIELD 30-06 AS ISSUED, VERY good. WANT—Primers N.C. N.M. 30-06, 38 Special. Bullet mold for 38 Special. 148 Gr. Wadcutter. 30 Cal. 172 Gr. Boattail bullets, give description. H. O. Hatcher, 109 College, Martinsville, Va. 7-42

WANTED—COLT CONVERSION UNIT—.45 TO .22. Excellent—perfect. State price and condition. Jack Droege, Room 914, 466 Lexington Ave., New York City. 7-42

REMINGTON 37, $59.00. SUPER LOVELL, Krag action, Custom job, $45.00. .22 Neidner, Win. Hi-Wall, Curly maple, $40.00. .250/3000 Winchester 54, excellent, $48.75. .40-82 Winchester 86, $22.50. .10 Davenport single, 36" full, tight, $7.75. .10 Ithaca double hammer, tight, $15.00. .22 Savage 23-AA, $27.50. .22 Stevens H.B. 12, rare, $10.00. List 10¢. Karl Hansen, 188 Main, White Plains, N. Y. 7-42

HUNTER'S PARTNER

THE FARMER. For the majority of us, hunting is possible only through his cooperation and good-will. Most farmers are sportsmen hunters, who keenly appreciate the necessity for wise game conservation. To this end they leave a few rows of grain standing for winter feeding; they retain covers unmolested; they destroy predators. Farmers today realize that game is a valuable crop, requiring care and foresight, just as any other crop.

KEEP "NO TRESPASSING" SIGNS DOWN. Here are a few suggestions that will help keep "No Trespassing" signs down permanently. Always ask permission, even if land is unposted. Close gates behind you. Watch out for live stock. Be considerate of farmers' rights and property, and try to get other hunters to do likewise. This way, hunters and farmers can work together for a more plentiful game supply.

DU PONT

EXPLOSIVES & SPORTING POWDERS

PRESS OF JUDD & DETWEILER, INC., WASHINGTON, D. C.

SERVING FIRST THE FORCES OF LIBERTY

We are helping to provide the *ammunition* without which there can be no Freedom. The quantities needed for the armed forces of Liberty almost defy calculation. There are millions of men to supply—millions of guns to be kept firing —machine guns, and rapid fire rifles that pour out their bullets in streams. The great plants of the Western Cartridge Company are going full speed ahead to keep up the vital flow of ammunition—to hasten the day when Western ammunition again can be available in normal quantities for peacetime use.

WESTERN CARTRIDGE COMPANY, EAST ALTON, ILL.

Western

WORLD CHAMPION AMMUNITION

MORE MARKSMEN FOR AMERIC